Annual Statistical Report

AMERICAN
IRON AND STEEL
INSTITUTE

1981

AMERICAN IRON AND STEEL INSTITUTE
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ROBERT PLATT

This report is respectfully dedicated to Robert (Bob) Platt, Director of Statistics, who retired from the Institute in 1982 after thirty-six years of service to the steel industry. Bob may have been far from the public eye. Nevertheless, upon his shoulders rested the trust of individual companies submitting confidential data for aggregation, as well as public reliance on the accuracy of the totals. Bob has been a credit to the industry.

FOREWORD

The American Iron and Steel Institute is proud of its long record of service to the American steel industry in the collection and distribution of steel industry statistics.

The 1981 report for the first time separates steel from non-steel segment data for certain financial items. Other changes in data coverage and presentation will also be observed. The industry is currently going through a period of major market adjustment from which it is likely to emerge with a quite different structure than that of the 1970s. These changes will be reflected in future data accumulations and presentations. Thus, major changes in the form of future annual reports are anticipated.

The majority of the data found in the Annual Statistical Report is compiled from submissions by reporting companies, although some series from other published sources are also included. The data in this report largely represent the steel production activities of reporting companies. However, certain financial statistics represent the broader spectrum of corporate activities—including steel and non-steel. For this and other reasons, the coverage of this report may differ somewhat from that found in other publications.

The Institute would like to express its appreciation for the contributions of many individuals in member companies and in the Institute's Statistical Department. Without the contributions of these individuals, the annual report and other statistical publications would not be possible.

DONALD F. BARNETT
Vice President and Economist

May, 1982

NOTES

D—Disclosure

P—Preliminary

R—Revised

n.a.—Not available

Net ton—2,000 pounds

Gross ton—2,240 pounds

Rounded figures do not necessarily add to totals.

SELECTED HIGHLIGHTS

THE IRON AND STEEL INDUSTRY AT A GLANCE

The Selected Statistical Highlights present a ten-year trend from which comparisons of year-to-year changes may be made for those items of the industry that are indicative of the operating level and the financial status of reporting companies. In the use of the highlights, it should be recognized that there is a difference in the universe of reporting companies for each of the major items in the statistical section. This is especially significant for the financial series as compared to other series; for example, the universe for financial data represents companies who in 1981 produced 85.3% of the reported raw steel production. Also, the user should recognize that many of these companies produce and sell products and services other than those related to the steel industry. Therefore, the financial data reported represents the results of the total operations of the steel companies.

SELECTED STATISTICAL HIGHLIGHTS

TABLE 1A—SHIPMENTS, APPARENT SUPPLY, IMPORTS & EMPLOYMENT (THOUSANDS)

Year	Steel Mill Products—Net Tons				Imports as % of Apparent Steel Supply					Steel Employment (a)
	Total Net Shipments	Less Exports	Plus Imports	Apparent Steel Supply	Total	Japan	EEC	Canada	Other	Average No. of Employees
1981	87,014	2,904	19,898	104,008	19.1	6.0	6.2	2.8	4.1	391
1980	83,853	4,101	15,495	95,247	16.3	6.3	4.1	2.5	3.4	399
1979	100,262	2,878	17,518	114,962	15.2	5.5	4.7	2.0	3.0	453
1978	97,935	2,422	21,135	116,648	18.1	5.8	6.4	2.0	4.1	449
1977	91,147	2,003	19,307	108,451	17.8	7.2	6.3	1.7	2.6	457
1976	89,447	2,654	14,285	101,078	14.1	7.9	3.2	1.3	1.7	454
1975	79,957	2,953	12,012	89,016	13.5	6.6	4.6	1.1	1.2	457
1974	109,472	5,833	15,970	119,609	13.4	5.1	5.4	1.1	1.8	512
1973	111,430	4,052	15,150	122,528	12.4	4.6	5.3	0.9	1.6	509
1972	91,805	2,873	17,681	106,613	16.6	6.0	6.1	1.1	3.4	478
Details on Page:	30	38	44	...	...	49	49	49	49	21

(a) Covering only those employees engaged in the production and sale of iron and steel products and excludes mining and quarrying operations, transportation, warehousing, fabrication and other non-steel producing activities.

TABLE 1B—RAW STEEL DATA (THOUSANDS OF NET TONS)

Year	World Production	United States				Percent of U.S. Production				
						By Type of Furnace			By Type Cast	
		Production	% of World	Capability	% of Capability	O.H.	BOP	Elec.	Ingots	Continuous
1981	780,708	120,828	15.5	154,300	78.3	11.1	60.6	28.3	78.2	21.6
1980	790,419 R	111,835	14.2	153,700	72.8	11.7	60.4	27.9	79.5	20.3
1979	824,486	136,341	16.5	155,300	87.8	14.0	61.1	24.9	82.9	16.9
1978	790,607	137,031	17.3	157,900	86.8	15.6	60.9	23.5	84.6	15.2
1977	741,828	125,333	16.9	160,000	78.4	16.0	61.8	22.2	87.3	12.5
1976	745,592	128,000	17.2	158,300	80.9	18.3	62.5	19.2	89.3	10.6
1975	712,033	116,642	16.4	153,100	76.2	19.0	61.6	19.4	90.7	9.1
1974	782,798	145,720	18.6	Not Available		24.3	56.0	19.7	Not Available	
1973	769,570	150,799	19.6	"		26.4	55.2	18.4	"	
1972	694,481	133,241	19.2	"		26.2	56.0	17.8	"	
Details on Page:	93	55	92			55	55	55	...	...

TABLE 1C—SELECTED FINANCIAL HIGHLIGHTS *
(Millions of Dollars)

Year	Sales	Net Income	Net Income as a % of Sales	Stockholders' Equity †	Net Income as a % of Stockholders' Equity	Working Capital Ratio	Long-Term Debt	Capital Expenditures
1981	$60,806.2	$2,583.9	4.2	$19,476.8	13.3	1.8	$9,481.2	$3,451.2 *
1980 R	52,828.8	1,734.9	3.3	18,056.6	9.6	1.7	9,803.0	3,389.6
1979	55,140.4	1,154.5	2.1	17,693.6	6.5	1.7	8,717.0	3,311.9
1978	49,033.0	1,276.6	2.6	17,603.7	7.3	1.8	8,763.0	2,595.2
1977	39,399.8	22.3	0.06	18,027.3	0.1	1.8	7,958.9	2,850.3
1976	36,092.5	1,337.4	3.7	17,192.2	7.8	1.9	6,966.5	3,252.9
1975	33,143.8	1,594.9	4.8	16,243.2	9.8	2.0	5,705.3	3,179.4
1974	37,745.0	2,475.2	6.6	14,513.5	17.1	1.8	4,651.2	2,114.7
1973	28,494.9	1,272.2	4.5	13,674.5	9.3	1.9	4,962.9	1,399.9
1972	22,364.9	774.8	3.5	13,281.4	5.8	1.9	5,229.6	1,174.3
Details on Page:	13	13	13	16	13	...	16	...

† As of Dec. 31 of the prior year. * Estimated cost to complete construction in progress *$5,466.0*.

TABLE 1D—SOURCE AND USE OF FUNDS *
(Millions of Dollars)

	Source								Use			
Year	Net Income	Less Cash Dividends Declared	Income Reinvested	Depreciation, etc.	Increase (Decrease) in Reserves, etc.	Total Internal Sources	External Debt and Stock	Total Sources of Funds	Capital Expenditures	Increase (Decrease) in Working Capital	Miscellaneous Investment and All Other	Total Disposition of Funds
1981	$2,583.9	$659.3	$1,924.6	$2,107.1	$893.1	$4,924.8	$ (201.6)	$4,723.2	$3,451.2	$2,152.6	($880.6)	$4,723.2
1980 R	1,734.9	629.8	1,105.1	1,957.8	332.0	3,394.9	1,401.1	4,796.0	3,389.6	835.0	571.4	4,796.0
1979	1,154.5	593.4	561.1	1,846.9	605.7	3,013.7	(244.1)	2,769.6	3,311.9	(16.3)	(526.0)	2,769.6
1978	1,276.6	536.1	740.5	1,707.1	261.1	2,708.7	153.5	2,862.2	2,595.2	719.1	(452.1)	2,862.2
1977	22.3	555.0	(532.7)	1,521.7	366.0	1,355.0	1,101.5	2,456.5	2,850.3	(133.9)	(259.9)	2,456.5
1976	1,337.4	637.1	700.3	1,378.4	235.9	2,314.6	1,396.0	3,710.6	3,252.9	275.0	182.7	3,710.6
1975	1,594.9	657.8	937.1	1,272.8	317.6	2,527.5	1,066.0	3,593.5	3,179.4	(43.8)	457.9	3,593.5
1974	2,475.2	674.4	1,800.8	1,327.2	225.8	3,353.8	(382.8)	2,971.0	2,114.7	935.8	(79.5)	2,971.0
1973	1,272.2	443.1	829.1	1,262.6	66.7	2,158.4	(256.8)	1,901.6	1,399.9	677.0	(175.3)	1,901.6
1972	774.8	402.3	372.5	1,170.7	44.8	1,588.0	105.8	1,693.8	1,174.3	357.9	161.6	1,693.8
Details on Page:	13	13	...	13	16	...	...	...	...	16	...	...

* Represents consolidated reports of steel industry companies who in 1981 produced 85.3% of the reported raw steel production.

TABLE 1E—CAPITAL EXPENDITURES FOR ENVIRONMENTAL FACILITIES

(Millions of Dollars)

Year	Water	Air	Total
1951–1965	$ 209.6	$ 238.8	$ 448.4
1966–1970	315.9	256.9	572.8
1971–1975	439.3	790.6	1,229.9
1976	158.7	330.5	489.2
1977	205.7	329.1	534.8
1978	180.8	277.2	458.0
1979	201.2	449.6	650.8
1980	168.2	342.3	510.5
1981	119.4	369.8	489.2
Total	$1,998.8	$3,384.8	$5,383.6
Authorized for 1982 or later	$ 254.6	$ 410.2	$ 664.8

Note: Capital expenditures in the above table include only those for facilities which were installed primarily for environmental control in domestic iron and steelmaking sectors, including steel company owned mines, quarries and fabricating plants. Total capital expenditures for all purposes, as shown in Tables 1C and 1D include those made by steel companies in both steel and nonsteel operations, domestic and foreign.

FINANCIAL STATISTICS

Financial data for 1981 includes companies which make up 85.3% of the reported total raw steel production of the entire industry. Other years are based on results of companies representing varying percentages of the entire industry. Such results also include activities which are not part of the steel industry (extractive industries, fabrication, trar sportation, etc.) Likewise, the employment data for this universe includes the cost of employees engaged in all such operations. Employment data for steel operations of these companies are shown as memoranda data but are not the same parameter as those included in the employment section. It should also be noted company participation may vary due to a merger or sale.

Indexes on consumer and producer prices of steel mill products in the iron and steel industry are those compiled by the United States Department of Labor, Bureau of Labor Statistics.

OVERSIZE FOLDOUT(S) FOUND HERE IN THE PRINTED EDITION OF THIS VOLUME ARE FOUND FOLLOWING THE LAST PAGE OF TEXT IN THIS MICROFICHE EDITION.

SEE FOLDOUT NUMBER 1

TABLE 2A—Steel vs. All Other Business Segments
(Millions of Dollars)

	1981	1980	1979
Sales			
Steel Segment	$44,117.4	$36,181.5	$42,793.7
All Other Segments	21,092.1	19,087.4	14,999.0
Inter Segment Eliminations	(4,403.3)	(2,440.1)	(2,652.3)
Total	$60,806.2	$52,828.8	$55,140.4
% Steel of Total	72.6	68.5	77.6
Depreciation, Depletion and Amortization			
Steel Segment	$ 1,658.8	$ 1,569.2	$ 1,545.7
All Other Segments	448.3	388.5	301.2
Total	$ 2,107.1	$ 1,957.7	$ 1,846.9
% Steel of Total	78.7	80.2	83.7
Operating Income			
Steel Segment	$ 2,426.8	$ 820.1	$ 1,970.9
All Other Segments	1,267.0	1,310.3	1,016.9
Total	$ 3,693.8	$ 2,130.4	$ 2,987.8
% Steel of Total	65.7	38.5	66.0
Identifiable Assets			
Steel Segment	$29,525.2	$28,872.3	$28,594.6
All Other Segments	17,934.1	14,824.6	11,594.7
Total	$47,459.3	$43,696.9	$40,189.3
% Steel of Total	62.2	66.1	71.1
Capital Expenditures			
Steel Segment	$ 2,434.4	$ 2,684.2	$ 2,547.9
All Other Segments	1,016.8	705.4	764.0
Total	$ 3,451.2	$ 3,389.6	$ 3,311.9
% Steel of Total	70.5	79.1	76.9

Note: Steel segment generally includes raw material operations dedicated to the support of steel operations. All other segments include corporate items not allocated to operating segments.

TABLE 3—EMPLOYMENT

(Millions of man hours and dollars)

(Covering the consolidated statements including all the affiliated interests of the parent companies rendering these reports)

	1981	1980 R	1979	1978	1977	1976	1975	1974	1973	1972
Labor: (All employees)										
Number of Employees:										
Average monthly number of employees receiving wages and salaries during the year:										
Wage employees	381,960	390,359	456,146	457,540	443,964	444,829	453,385	508,904	509,777	479,029
Salaried employees	163,164	163,189	163,966	167,706	165,099	162,347	163,273	165,968	161,026	159,231
Total Employees	545,124	553,548	620,112	625,246	609,063	607,176	616,658	674,872	670,803	638,260
Man Hours Worked During the Year:										
Wage employees	700.3	704.8	862.4	872.8	826.3	828.1	814.4	975.7	991.0	904.4
Salaried employees	326.9	330.9	325.7	337.2	333.0	328.4	332.9	339.1	329.3	320.8
Total Hours	1,027.2	1,035.7	1,188.1	1,210.0	1,159.3	1,156.5	1,147.3	1,314.8	1,320.3	1,225.2
Total Payroll:										
Wage employees	$ 9,952.6	$ 9,277.0	$10,167.9	$ 9,160.8	$7,878.7	$7,168.5	$6,380.4	$6,855.2	$5,989.4	$5,064.8
Salaried employees	5,003.9	4,595.9	4,359.6	3,937.9	3,498.0	3,229.5	3,018.3	2,858.5	2,440.8	2,215.9
Total Payroll	14,956.5	13,872.9	14,527.5	13,098.7	11,376.7	10,398.0	9,398.7	9,713.7	8,430.2	7,280.7
Less portion of payroll included above but charged to own construction or other non-operating accounts	134.1	157.7	130.6	122.7	157.9	175.7	165.9	133.7	117.8	102.9
Balance	$14,822.4	$13,715.2	$14,396.9	12,976.0	11,218.8	$10,222.3	$9,232.8	$9,580.0	$8,312.4	$7,177.8

TABLE 4—BALANCE SHEET

(As of Dec. 31)

(Covering the consolidated statements including all the affiliated interests of the parent companies rendering these reports)

(Millions of dollars)

ASSETS	1981	1980[R]	1979	1978	1977	1976	1975	1974	1973	1972
Current Assets:										
Cash and marketable securities	$ 4,044.1	$ 2,595.9	$ 1,978.8	$ 2,078.3	$ 1,564.2	$ 1,603.9	$ 1,721.7	$ 3,518.0	$ 2,404.7	$ 1,015.1
Receivables, less allowances for doubtful accounts	7,960.1	7,300.8	6,419.5	5,835.8	4,434.7	3,565.2	3,398.4	4,091.6	3,222.3	2,941.3
Inventories	8,059.7	6,794.8	6,909.1	6,480.1	5,898.2	6,408.5	5,390.8	4,394.1	3,728.7	4,105.8
Other Current Assets	207.8	267.9	160.7	186.2	443.0	251.0	239.5	208.8	156.5	148.7
Total Current Assets	20,271.7	16,959.4	15,468.1	14,580.4	12,340.1	11,828.6	10,750.4	12,212.5	9,512.2	8,210.9
Miscellaneous investments and other assets	3,441.0	3,723.3	2,873.0	3,009.0	2,867.0	2,613.1	2,437.5	2,112.3	1,894.7	1,995.7
Fixed Assets:										
Property, plant and equipment	47,491.3	45,998.3	43,790.2	42,280.3	41,406.7	39,879.2	37,145.0	34,500.3	33,593.7	32,609.2
Less—Depreciation, depletion and amortization	24,336.8	23,588.0	22,456.5	22,008.2	21,684.5	21,228.6	20,286.1	19,601.1	19,114.2	18,194.0
Net Fixed Assets	23,154.5	22,410.3	21,333.7	20,272.1	19,722.2	18,650.6	16,858.9	14,899.2	14,479.5	14,415.2
Intangibles	81.7	61.4	55.6	56.9	55.1	110.2	98.7	82.9	85.1	57.9
Deferred charges	510.4	542.5	458.9	441.2	432.6	361.5	274.4	199.5	161.2	157.3
TOTAL ASSETS	$47,459.3	$43,696.9	$40,189.3	$38,359.6	$35,417.0	$33,564.0	$30,419.9	$29,506.4	$26,132.7	$24,837.0
LIABILITIES AND STOCKHOLDERS' EQUITY										
Current Liabilities:										
Accrued taxes, including Federal income taxes	$ 1,615.6	$ 1,365.5	$ 1,212.8	$ 1,168.3	$ 771.5	$ 865.1	$ 897.5	$ 1,846.3	$ 1,104.8	$ 886.6
Long-term debt maturing within one year	362.3	286.7	351.3	287.8	300.6	232.7	209.4	255.6	186.2	232.0
All other current liabilities	9,023.2	8,189.2	7,621.0	6,825.0	5,687.8	5,016.7	4,204.3	4,627.6	3,674.0	3,222.1
Total Current Liabilities	11,001.1	9,841.4	9,185.1	8,281.1	6,759.9	6,114.5	5,311.2	6,729.5	4,965.0	4,340.7
Long-term debt less amount maturing within one year	9,481.2	9,803.0	8,717.0	8,763.0	7,958.9	6,966.5	5,705.3	4,651.2	4,962.9	5,229.6
Other long-term liabilities and reserves	4,878.7	3,985.6	3,653.6	3,047.9	2,786.8	2,420.8	2,184.9	1,867.3	1,641.5	1,574.8
Minority interest in companies not wholly owned	576.7	590.1	577.0	574.0	307.7	34.9	26.3	15.2	49.8	17.4
Stockholders' Equity:										
Preferred stock	133.8	137.9	105.5	212.6	231.6	106.8	108.2	111.3	114.6	117.4
Common stock	3,935.3	3,836.2	3,398.1	3,201.1	3,221.4	3,172.6	3,052.0	3,046.4	3,047.5	3,128.5
Capital surplus	1,795.9	1,397.1	1,450.3	1,629.3	1,416.9	1,396.6	1,352.6	1,292.1	1,270.7	1,243.3
Income reinvested in business	15,656.6	14,105.6	13,102.7	12,650.6	12,733.8	13,351.3	12,679.4	11,793.4	10,080.7	9,185.3
Total Stockholders' Equity (December 31)	21,521.6	19,476.8	18,056.6	17,693.6	17,603.7	18,027.3	17,192.2	16,243.2	14,513.5	13,674.5
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$47,459.3	$43,696.9	$40,189.3	$38,359.6	$35,417.0	$33,564.0	$30,419.9	$29,506.4	$26,132.7	$24,837.0

TABLE 5—BLS—CONSUMER AND PRODUCER PRICE INDEXES OF STEEL PRICES (1967=100)

Source: United States Department of Labor, Bureau of Labor Statistics

			Iron and Steel					
			Steel Mill Products			Other Iron and Steel Products		
Year	Consumer Price Index	Industrial Commodities	Total	Finished	Semi-Finished	Pig Iron & Ferro-alloys	Scrap Iron & Steel	Fdry. & Forgings
1947	66.9	70.8	45.5	46.0	40.4	64.4	129.0	49.6
1948	72.1	76.9	52.0	52.4	48.7	76.8	162.9	57.3
1949	71.4	75.3	56.4	56.7	53.3	85.3	107.6	59.6
1950	72.1	78.0	59.4	59.5	57.8	87.3	139.3	60.6
1951	77.8	86.1	64.0	64.3	60.9	95.5	158.2	66.2
1952	79.5	84.1	65.4	65.8	62.3	98.8	152.0	66.5
1953	80.1	84.8	70.5	70.8	69.1	104.4	137.2	70.1
1954	80.5	85.0	73.8	73.8	74.2	103.9	106.2	71.7
1955	80.2	86.9	77.2	77.3	78.0	104.6	139.3	73.5
1956	81.4	90.8	83.8	83.8	83.5	114.3	176.3	81.0
1957	84.3	93.3	91.8	91.7	92.5	124.5	155.7	87.3
1958	86.6	93.6	95.0	94.9	95.9	125.1	124.8	89.9
1959	87.3	95.3	96.5	96.5	97.3	125.4	133.4	91.7
1960	88.7	95.3	96.4	96.3	97.1	120.4	110.2	92.4
1961	89.6	94.8	96.0	95.9	97.0	118.4	116.8	92.7
1962	90.6	94.8	95.8	95.7	97.0	113.9	95.2	92.8
1963	91.7	94.7	96.3	96.2	97.4	102.3	91.7	92.8
1964	92.9	95.2	97.1	97.0	98.6	97.1	109.4	93.8
1965	94.5	96.4	97.5	97.5	98.4	100.3	112.6	95.1
1966	97.2	98.5	98.9	98.8	98.8	100.3	106.6	96.8
1967	100	100	100	100	100	100	100	100
1968	104.2	102.5	102.5	102.5	102.3	100.9	93.0	103.0
1969	109.8	106.0	107.4	107.4	107.0	102.1	110.5	106.9
1970	116.3	110.0	114.3	114.3	112.2	114.6	138.9	112.6
1971	121.3	113.9	123.0	123.0	122.7	126.3	114.6	119.2
1972	125.3	117.9	130.4	130.4	130.9	125.4	121.8	124.3
1973	133.1	127.0	134.1	134.1	133.9	129.4	188.0	131.5
1974	147.7	153.8	170.0	170.0	169.0	188.1	353.2	161.4
1975	161.2	171.5	197.2	196.6	206.7	264.7	245.6	194.3
1976	170.5	182.4	209.8	209.0	223.1	261.6	259.0	218.6
1977	181.5	195.1	229.9	229.0	243.6	257.0	231.2	229.9
1978	195.3	209.3	254.4	253.4	270.6	259.7	264.6	248.7
1979	217.7	236.1	280.4	279.5	294.3	296.5	341.9	275.8
1980	247.0	274.2	302.7	301.2	325.3	307.2	328.1	309.0
1981	272.3	303.6	337.6	336.2	359.3	315.1	327.4	329.3
			1981					
Jan.	260.7	289.9	322.7	321.1	348.0	310.6	348.3	321.7
Feb.	263.5	294.8	322.9	321.3	348.5	310.6	342.5	321.7
Mar.	265.2	298.9	328.7	327.4	348.5	310.6	367.6	321.9
April	266.8	302.8	331.8	330.6	349.9	312.0	362.5	323.5
May	269.1	304.1	332.0	330.9	348.7	311.7	348.3	326.6
June	271.4	304.7	332.1	331.0	348.0	311.7	328.3	329.6
July	274.6	306.0	344.9	343.3	369.9	312.6	323.6	331.0
Aug.	276.5	307.0	344.9	343.3	369.9	313.2	335.6	331.8
Sept.	279.1	307.2	345.3	343.7	369.9	316.5	323.8	334.1
Oct.	279.7	308.8	348.7	347.3	369.9	324.0	305.1	336.2
Nov.	280.4	309.1	348.6	347.2	369.9	324.1	281.1	336.2
Dec.	281.1	310.1	348.9	347.5	370.7	323.9	272.1	337.5

EMPLOYMENT AND WAGE DATA

The data on number of employees, hours worked, wages and salaries paid, payroll cost per hour and employment cost per hour cover only those employees engaged in the operation of coke ovens, blast furnaces, steelmaking furnaces and finishing mills, etc. and the sale of products thereof as reported by companies comprising about 93% of total raw steel production. This contrasts with employment data shown on page 15 of the Financial Section which cover all operations of reporting companies.

Indexes on output per manhour in the iron and steel industry are those compiled by the United States Department of Labor, Bureau of Labor Statistics.

TABLE 6—NUMBER OF EMPLOYEES, HOURS WORKED AND PAYROLL COST IN IRON AND STEEL INDUSTRY

(Covering only those employees engaged in the production and sale of iron and steel products)

Year	Employees Receiving Wages					Employees Receiving Salaries			All Employees Receiving Wages and Salaries					Year
	Average Number of Employees †	Total Hours Worked (000)	Avg. Hrs. Worked Per Week Per Employee	Total Wages * (000)	Average Payroll Cost Per Hour	Average Number of Employees †	Total Hours Worked (000)	Total Salaries * (000)	Average Number of Employees †	Total Hours Worked (000)	Avg. Hrs. Worked Per Week Per Employee	Total Wages and Salaries * (000)	Average Payroll Cost Per Hour	
1981	286,219	543,324	36.4	$8,394,034	$15.449	104,695	209,373	$3,494,624	390,914	752,697	36.9	$11,888,658	$15.795	1981
1980	291,483	544,220	35.7	7,715,679	14,177	107,346	213,575	3,218,442	398,829	757,795	36.3	10,934,121	14.429	1980
1979	341,931	669,045	37.5	8,397,211	12.551	111,250	225,033	3,085,197	453,181	894,078	37.8	11,482,408	12.843	1979
1978	339,155	669,720	37.9	7,547,510	11.270	110,042	222,462	2,778,779	449,197	892,182	38.1	10,326,289	11.574	1978
1977	337,396	645,853	36.7	6,620,557	10.251	114,992	230,051	2,622,822	452,388	875,904	37.1	9,243,379	10.553	1977
1976	339,021	645,748	36.4	5,897,181	9.132	115,107	231,038	2,434,283	454,128	876,786	36.9	8,331,464	9.502	1976
1975	339,945	621,691	35.1	5,1[illegible],768	8.311	117,217	233,214	2,279,525	457,162	854,905	35.9	7,446,293	8.710	1975
1974	393,212	771,977	37.7	5,732,017	7.425	119,183	241,150	2,170,827	512,395	1,013,127	37.9	7,902,844	7.800	1974
1973	392,851	787,955	38.5	4,972,953	6.311	115,763	235,000	1,837,475	508,614	1,022,955	38.6	6,810,428	6.658	1973
1972	364,074	709,894	37.3	4,172,287	5.877	114,294	230,408	1,677,013	478,368	940,302	37.6	5,849,300	6.221	1972
1971	366,982	690,431	36.1	3,600,764	5.215	120,287	241,070	1,582,178	487,269	931,501	36.7	5,182,942	5.564	1971
1970	403,115	771,886	36.7	3,679,658	4.767	128,081	257,852	1,554,077	531,196	1,029,738	37.2	5,233,735	5.082	1970
1969	415,301	835,154	38.6	3,813,449	4.566	128,718	263,821	1,517,511	544,019	1,098,975	38.7	5,330,960	4.851	1969
1968	420,684	829,837	37.7	3,570,606	4.303	130,873	265,280	1,443,005	551,557	1,095,117	38.0	5,013,611	4.578	1968
1967	424,153	818,486	37.0	3,330,529	4.069	130,990	265,231	1,355,014	555,143	1,083,717	37.4	4,685,543	4.324	1967
1966	446,712	889,190	38.2	3,571,600	4.017	128,835	263,312	1,322,503	575,547	1,152,502	38.4	4,894,103	4.247	1966
1965	458,539	901,984	37.7	3,549,102	3.935	125,312	256,224	1,247,956	583,851	1,158,208	38.0	4,797,058	4.142	1965
1964	434,654	869,447	38.3	3,300,516	3.796	118,901	244,658	1,171,823	553,555	1,114,105	38.5	4,472,339	4.014	1964
1963	405,536	790,006	37.4	2,913,214	3.687	114,753	233,369	1,104,721	520,289	1,023,375	37.7	4,017,935	3.926	1963
1962	402,662	768,496	36.6	2,783,784	3.622	117,876	239,515	1,120,322	520,538	1,008,011	37.1	3,904,106	3.873	1962

† Average of the monthly number of employees receiving pay after adjustment for turnover.
* Excludes other employment costs such as payroll taxes, supplemental unemployment benefits, pensions, insurance, workers compensation and thrift plans.

TABLE 7—TOTAL EMPLOYMENT COST PER HOUR WORKED—WAGE EMPLOYEES IN THE IRON AND STEEL INDUSTRY

(Covering only those employees engaged in the production of iron and steel products)

Year	Pay for Hours Worked						Memo	Other Payroll Costs						Year
	Straight Time					Subtotal								
	Regular (1)	Shift Differential (2)	Sunday Premium (3)	Overtime Premium (4)	Premium For Work On Holidays (5)	Pay For Hours Worked (6)	Average Hourly Earnings In Steel (BLS) (7)	Pay For Holidays Not Worked (8)	Vacation Pay (9)	Allowances and Adjustments (10)	Total Payroll Cost Per Hour (11)	Employee Benefits Cost Per Hour (12)	Total Employment Cost Per Hour (13)	
1981	$12.092	$.171	$.434	$.432	$.298	$13.427	$13.11	$.350	$1.601	$.071	$15.449	$4.709	$20.158	1981
1980	10.971	.135	.377	.336	.295	12.114	11.84	.333	1.574	.156	14.177	4.274	18.451	1980
1979	9.822	.121	.368	.427	.281	11.019	10.77	.247	1.230	.055	12.551	3.370	15.921	1979
1978	8.890	.120	.333	.391	.242	9.976	9.70	.194	1.051	.049	11.270	3.033	14.303	1978
1977	8.029	.117	.280	.294	.193	8.913	8.67	.200	1.015	.123	10.251	2.785	13.036	1977
1976	7.247	.115	.249	.239	.148	7.998	7.86	.177	.912	.045	9.132	2.612	11.744	1976
1975	6.634	.080	.218	.171	.124	7.227	7.11	.170	.874	.040	8.311	2.279	10.590	1975
1974	5.921	.062	.212	.235	.120	6.550	6.38	.114	.653	.108	7.425	1.653	9.078	1974
1973	5.159	.062	.135	.218	.114	5.688	5.56	.092	.507	.024	6.311	1.370	7.681	1973
1972	4.813	.060	.087	.161	.100	5.221	5.15	.101	.528	.027	5.877	1.198	7.075	1972
1971	4.242	.060	.075	.126	.071	4.574	4.57	.090	.519	.032	5.215	1.046	6.261	1971
1970	3.926	.054	.071	.118	.067	4.236	4.22	.077	.431	.023	4.767	.910	5.677	1970
1969	3.776	.050	.072	.154	.068	4.120	4.09	.053	.370	.023	4.566	.809	5.375	1969
1968	3.553	.049	.067	.126	.065	3.860	3.82	.049	.376	.018	4.303	.729	5.032	1968
1967	3.398	.048	.063	.091	.056	3.656	3.62	.056	.349	.008	4.069	.689	4.758	1967
1966	3.353	.049	.065	.110	.059	3.636	3.58	.049	.324	.008	4.017	.616	4.633	1966
1965	3.261	.049	.064	.106	.056	3.536	3.46	.048	.343	.008	3.935	.540	4.475	1965
1964	3.177	.049	.061	.090	.054	3.431	3.41	.048	.310	.007	3.796	.559	4.355	1964
1963	3.166	.047	.055	.069	.053	3.390	3.36	.050	.240	.007	3.687	.560	4.247	1963
1962	3.141	.046	.052	.052	.041	3.332	3.29	.058	.224	.008	3.622	.533	4.155	1962
Incr. 1981 vs. 1962	$8.951	$.125	$.382	$.380	$.257	$10.095	$9.82	$.292	$1.377	$.063	$11.827	$4.176	$16.003	Incr. 1981 vs. 1962
	285%	272%	735%	731%	627%	303%	298%	503%	615%	...	327%	783%	385%	

Notes Pertaining to Table Above by Column Numbers

(1) Includes nonincentive bonus where applicable and Cost of Living Adjustment. The job class rate as established effective August 1, 1981 includes $4.49 Cost of Living Adjustment roll in. The Cost of Living Adjustment subsequent to August 1, 1981 reached a total at year end of 25¢ per hour worked as shown below.

Cost of Living Adjustment Per Hour Worked

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Feb.	....	$.06	$.39	$.56	$.19	$.14	$.39	$.25	$.44	$.36
May	....	.13	.15	.64	.23	.13	.51	.47	*	.58
Aug.	$.01	.21	.28	....	....	.25	....	....	....	....
Nov.	.03	.30	.44	.10	.08	.32	.13	.23	.14	.25

* Excludes $.33 diverted to finance pension improvements for retirees.

(2) Shift differential was increased August 1, 1981 to 30¢ per hour middle shift and to 45¢ per hour night shift.

(7) BLS average hourly earnings for 1965 do not include the one-time payment made by most companies in late 1965 resulting from the Extension Agreement covering the period from May 1, 1965 through August 31, 1965 which provided for an employment cost accrual of 11.5¢ per hour worked.

(9) Includes regular vacation and company liability for vacation time-off and/or pay in lieu of SVP. Appropriate adjustments have been made beginning with the year 1963.

(10) Allowances include earnings protection plan payments, reporting allowance, allowance for participation in military and naval training programs, jury duty, witness pay, funeral leave, rate retention under consent decree and similar actions, severance pay, $150 bonus paid under the Experimental Negotiating Agreement with the Steelworkers Union and/or other unions, and retroactive payments.

(12) Savings and vacation plan benefits were (other than payroll portion) initiated July 1, 1962.

STANDARD HOURLY WAGE RATE INCREASES AND MINIMUM WAGE RATES IN THE IRON AND STEEL INDUSTRY (PER AGREEMENT WITH STEELWORKERS UNION) 1961–1981**

Effective Date	Standard Hourly Wage Rate Increases Per Hour: Job Class 1 and 2	Increment/ Job Class	Avg. All Job Classes	Minimum Std. Hourly Wage Rate (Job Class 1 and 2)
October 1, 1961	.085	.001	.092	2.285
September 1, 1965	.100	.003	.121	2.385
August 1, 1967	.060	.002	.076	2.445
August 1, 1968	.200	.005	.236	2.645
August 1, 1969	.120	.003	.142	2.765
August 1, 1970	.120	.002	.135	2.885
August 1, 1971	.500	.005	.537	3.385
August 1, 1972	.125	.004	.154	3.510
August 1, 1973	.125	.004	.155	3.635
May 1, 1974	.670	.002	.685	4.305
August 1, 1975	.890	.003	.913	5.195
August 1, 1976	.480	.004	.511	5.675
May 1, 1977	.340	.004	.371	6.015
August 1, 1977	.200	....	.200	6.215
February 1, 1978	.100	....	.100	6.315
August 1, 1978	.800	.003	.823	7.115
February 1, 1979	.100	....	.100	7.215
August 1, 1979	.820	.003	.843	8.035
May 1, 1980	.690	.010	.770	8.725
August 1, 1980	.260	....	.260	8.985
August 1, 1981	.990*	.010	1.071	9.975

*See footnote (1) for explanation.

**Note: As of August 1, 1981, the hourly wage rate varies from a minimum (Job Class 1 and 2) of $9.975 to a maximum (Job Class 34) of $14.359 with an increment of 13.7¢ per hour between job classes.

TABLE 8—COLLECTIVE BARGAINING AGREEMENTS WITH UNITED STEELWORKERS UNION

Year	Effective Date of New Agreement	Periods of General Steel Strikes	Length (Calendar Days)
1946	Feb. 15, 1946	Jan. 21—Feb. 17	28
1947	Apr. 22, 1947	...	...
1948	July 16, 1948	...	...
1949	Nov. 11, 1949	Oct. 1—Nov. 11	42
1950	Nov. 30, 1950	...	...
1952	July 26, 1952	Apr. 29—May 2 June 2—July 26	3 55
1953	June 12, 1953	...	...
1954	July 1, 1954	...	...
1955	June 30, 1955	July 1	A Few Hours
1956	Aug. 3, 1956	July 1—Aug. 3	34
1960	Jan. 4, 1960	July 15—Nov. 7, 1959	116
1962	Apr. 6, 1962	...	...
1963	June 29, 1963	...	...
1965	Sept. 1, 1965	...	...
1968	Aug. 1, 1968	...	...
1971	Aug. 1, 1971	...	...
1974	Aug. 1, 1974	...	...
1977	Aug. 1, 1977	...	...
1980	Aug. 1, 1980	...	...

NOTE: Some companies have agreements with starting dates other than those listed above.

TABLE 9—BLS INDEX OF OUTPUT PER MAN-HOUR IN THE STEEL INDUSTRY (ALL EMPLOYEES)

Year	1977=100
1951	68.1
1952	68.5
1953	70.0
1954	66.8
1955	75.9
1956	74.8
1957	72.9
1958	67.4
1959	75.7
1960	71.2
1961	73.4
1962	77.1
1963	80.6
1964	84.1
1965	87.5
1966	89.2
1967	86.4
1968	89.5
1969	90.0
1970	87.6
1971	91.9
1972	97.3
1973	106.6
1974	106.5
1975	93.3
1976	99.0
1977	100.0
1978	108.3
1979	106.9
1980	102.9
1981	112.0
Average Annual Increase *	
1951–1981	1.7
1956–1981	1.8
1961–1981	1.7
1966–1981	1.5
1971–1981	1.2
1976–1981	2.0

* Based on least squares method.

SOURCE: United States Department of Labor, Bureau of Labor Statistics
NOTE: Although the output per man-hour data relate output to one input—labor time—they do not measure the specific contribution of labor, of capital, or of any other factor to production. In short, they do not reflect solely changes in the productiveness of labor. Rather, they reflect the joint effect of a number of interrelated influences such as changes in technology, capital investment per worker, utilization of capacity, layout and flow of material, skill of the work force, managerial skill, and labor-management relations.

TABLE 10—OCCUPATIONAL INJURY/ILLNESS

(Reported by companies comprising 92% of total raw steel production)

	1981	1980	1979	1978	1977
1. Aggregate number of man-hours (millions)	747	741	892	884	869
2. OSHA recordable injuries/illnesses:					
a. Fatalities	46	42	64	55	55
b. Lost workday cases	8,488	9,779	14,159	14,026	14,013
c. Other medical treatment cases	20,610	20,320	28,856	28,453	28,977
d. Total (2a through 2c)	29,144	30,141	43,079	42,534	43,045
3. Frequency rate (number of injuries/illnesses per 200,000 man-hours worked)	7.805	8.138	9.654	9.623	9.908
4. OSHA workdays lost (thousands)	238	246	323	311	309
5. Severity rate (days lost per 200,000 man-hours worked)	64	66	72	70	71

NOTE: Recordable injuries are reported as specified by the Bureau of Labor Statistics, U.S. Department of Labor pursuant to Section 24(a) of the Occupational Safety and Health Act of 1970.

TABLE 11—WAGE EMPLOYEES IN THE IRON AND STEEL INDUSTRY CLASSIFIED BY AGE AND BY LENGTH OF SERVICE

(Covering only those employees who were engaged in the production of iron and steel products as reported by companies representing 92% of raw steel production)

Years of Service	1980 No. of Employees*	1980 %	1979 No. of Employees*	1979 %
Under 5	63,440	20.4	69,335	20.8
5 to 9	57,690	18.5	65,881	19.8
10 to 14	48,116	15.4	49,265	14.8
15 to 24	52,372	16.8	58,625	17.6
25 to 34	74,292	23.8	72,799	21.8
35 and over	15,917	5.1	17,498	5.2
TOTAL	311,827	100.0	333,403	100.0
Average service	16.2		15.8	

Years of Age	1980 No. of Employees*	1980 %	1979 No. of Employees*	1979 %
Under 25	30,544	9.8	41,568	12.5
25 to 34	94,300	30.2	94,977	28.5
35 to 44	60,342	19.4	61,708	18.5
45 to 54	70,546	22.6	75,579	22.7
55 to 64	54,672	17.5	58,015	17.4
65 and over	1,423	0.5	1,556	0.4
TOTAL	311,827	100.0	333,403	100.0
Average age	41.0		40.6	

* Employees at year end, including employees on layoff, disability, and leave of absence other than military. Excludes employees terminated or retired during the year. 1981 data was not available at the time this Report went to press.

SHIPMENTS—STEEL PRODUCTS

Data in this section are expressed in terms of Gross Shipments and Net Shipments. Gross shipments represent the aggregate tonnage shipped by reporting companies including steel consumed by the companies in their own construction, maintenance, repair and operations, as well as in their own manufacture of fabricated products. Net shipments eliminate tonnage duplication by deducting from the gross total those shipments from one reporting company to another reporting company for conversion, further processing or resale.

TABLE 12—SHIPMENTS OF STEEL PRODUCTS—1981
ALL GRADES—(CARBON, ALLOY AND STAINLESS)

(Net Tons)

Steel Products	Total Gross Shipments	Less Shipments to Reporting Companies	Total Net Shipments	Per Cent of Total Net Shipments
Ingots and steel castings	503,818	89,708	414,110	0.5
Blooms, slabs, billets	2,198,163	29,812	2,168,351	2.5
Skelp	77,545	59,778	17,767	...
Wire rods	3,301,039	303,575	2,997,464	3.4
Total Semi-Finished	6,080,565	482,873	5,597,692	6.4
Structural shapes (3" & over)	4,621,050	166	4,620,884	5.3
Steel piling	281,941	...	281,941	0.3
Plates	7,415,388	18,325	7,397,063	8.5
Total Shapes and Plates	12,318,379	18,491	12,299,888	14.1
Rails—Standard (over 60 lbs.)	907,029	223	906,806	1.0
—All other	46,905	...	46,905	0.1
Joint bars	9,625	...	9,625	...
Tie Plates	213,174	...	213,174	0.3
Track spikes	71,302	...	71,302	0.1
Wheels (rolled and forged)	110,185	...	110,185	0.1
Axles	99,949	...	99,949	0.1
Total Rails and Accessories	1,458,169	223	1,457,946	1.7
Bars—Hot Rolled	7,462,558	834,438	6,628,120	7.6
—Bar-Size light shapes	1,142,798	1,022	1,141,776	1.3
—Reinforcing	4,433,825	62,797	4,371,028	5.0
—Cold finished	1,620,404	422	1,619,982	1.9
Tool steel	67,859	499	67,360	0.1
Total Bars and Tool Steel	14,727,444	899.178	13,828,266	15.9
Pipe and tubing—Standard	1,921,725	63,207	1,858,518	2.1
—Oil country goods	4,441,809	200,702	4,241,107	4.9
—Line	2,050,879	3,368	2,047,511	2.4
—Mechanical	1,374,945	27,125	1,347,820	1.5
—Pressure	155,688	1,924	153,764	0.2
—Structural	598,336	635	597,701	0.7
—Stainless	40,821	1,714	39,107	...
Total Pipe and Tubing	10,584,203	298,675	10,285,528	11.8
Wire—Drawn	1,332,740	13,990	1,318,750	1.5
—Nails and staples	150,223	5	150,218	0.2
—Barbed and twisted	81,514	...	81,514	0.1
—Woven wire fence	94,782	181	94,601	0.1
—Bale ties and baling wire	49,107	...	49,107	0.1
Total Wire and Wire Products	1,708,366	14,176	1,694,190	2.0
Black plate	426,971	5,969	421,002	0.5
Tin plate	3,489,768	...	3,489,768	4.0
Tin Free steel	948,316	...	948,316	1.1
Tin Mill products—All other	67,989	...	67,989	0.1
Total Tin Mill Products	4,933,044	5,969	4,927,075	5.7
Sheets—Hot rolled	14,805,378	1,354,680	13,450,698	15.5
—Cold rolled	14,440,233	44,533	14,395,700	16.5
Sheets & strip—Galvanized—Hot dipped	5,391,595	16,282	5,375,313	6.2
—Electrolytic	547,806	66	547,740	0.6
—All other metallic coated	835,960	263	835,697	1.0
—Electrical	599,105	...	599,105	0.7
Strip—Hot rolled	857,867	198,302	659,565	0.7
—Cold rolled	1,063,926	4,198	1,059,728	1.2
Total Sheets and Strip	38,541,870	1,618,324	36,923,546	42.4
TOTAL SHIPMENTS	90,352,040	3,337,909	87,014,131	100.0

TABLE 13—SHIPMENTS OF STEEL PRODUCTS—1981 BY GRADES (CARBON, ALLOY AND STAINLESS)

(Net tons)

Steel Products	Carbon	%	Alloy	%	Stainless	%	Total	%
Ingots and steel castings	202,164	0.3	202,818	1.9	9,128	0.8	414,110	0.5
Blooms, slabs, billets	1,502,782	2.0	617,140	5.8	48,429	4.1	2,168,351	2.5
Skelp	17,767	...	...	...	...	...	17,767	...
Wire rods	2,924,599	3.9	41,493	0.4	31,372	2.7	2,997,464	3.4
Total Semi-Finished	4,647,312	6.2	861,451	8.1	88,929	7.6	5,597,692	6.4
Structural shapes (3" & over)	3,961,617	5.3	659,267	6.2	...	...	4,620,884	5.3
Steel piling	264,699	0.3	17,242	0.2	...	...	281,941	0.3
Plates	5,772,095	7.7	1,502,645	14.2	122,323	10.5	7,397,063	8.5
Total Shapes and Plates	9,998,411	13.3	2,179,154	20.6	122,323	10.5	12,299,888	14.1
Rails:								
Standard (over 60 lbs.)	853,431	1.1	53,375	0.5	...	...	906,806	1.0
All other	46,905	0.1	...	...	...	...	46,905	0.1
Joint bars	9,625	...	...	...	...	...	9,625	...
Tie plates	213,174	0.3	...	...	...	...	213,174	0.3
Track spikes	71,302	0.1	...	...	...	...	71,302	0.1
Wheels (rolled and forged)	107,854	0.2	2,331	...	...	...	110,185	0.1
Axles	99,949	0.1	...	...	...	...	99,949	0.1
Total Rails and Accessories	1,402,240	1.9	55,706	0.5	...	...	1,457,946	1.7
Bars:								
Hot rolled	4,204,066	5.6	2,380,922	22.5	43,132	3.7	6,628,120	7.6
Bar-Size light shapes	1,141,776	1.5	(Included in Hot Rolled Bars)				1,141,776	1.3
Reinforcing	4,329,505	5.8	41,523	0.4	...	...	4,371,028	5.0
Cold finished	1,298,430	1.7	235,650	2.2	85,902	7.4	1,619,982	1.9
Tool steel	...	...	67,360	0.6	...	...	67,360	0.1
Total Bars and Tool Steel	10,973,777	14.6	2,725,455	25.7	129,034	11.1	13,828,266	15.9
Pipe and tubing:								
Standard	1,848,127	2.4	10,391	0.1	...	...	1,858,518	2.1
Oil country goods	2,763,086	3.7	1,478,021	14.0	...	...	4,241,107	4.9
Line	1,629,267	2.2	418,244	3.9	...	...	2,047,511	2.4
Mechanical	848,183	1.1	499,637	4.7	...	...	1,347,820	1.5
Pressure	113,173	0.1	40,591	0.4	...	...	153,764	0.2
Structural	596,038	0.8	1,663	...	...	...	597,701	0.7
Stainless	...	...	...	...	39,107	3.4	39,107	...
Total Pipe and Tubing	7,797,874	10.3	2,448,547	23.1	39,107	3.4	10,285,528	11.8
Wire:								
Drawn	1,277,975	1.7	15,027	0.2	25,748	2.2	1,318,750	1.5
Nails and staples	150,218	0.2	...	...	...	...	150,218	0.2
Barbed and twisted	81,514	0.1	...	...	...	...	81,514	0.1
Woven wire fence	94,601	0.1	...	...	...	...	94,601	0.1
Bale ties and bailing wire	49,107	0.1	...	...	...	...	49,107	0.1
Total Wire and Wire Products	1,653,415	2.2	15,027	0.2	25,748	2.2	1,694,190	2.0
Black plate	421,002	0.5	...	...	...	...	421,002	0.5
Tin plate	3,489,768	4.6	...	...	...	...	3,489,768	4.0
Tin Free Steel	948,316	1.3	...	...	...	...	948,316	1.1
All other T.M.P	67,989	0.1	...	...	...	...	67,989	0.1
Total Tin Mill Products	4,927,075	6.5	...	...	...	...	4,927,075	5.7
Sheets:								
Hot rolled	12,051,105	16.0	1,370,344	12.9	29,249	2.5	13,450,698	15.5
Cold rolled	13,748,362	18.3	142,332	1.3	505,006	43.4	14,395,700	16.5
Sheets and strip:								
Galvanized:								
Hot dipped	5,254,414	7.0	120,899	1.1	...	...	5,375,313	6.2
Electrolytic	547,740	0.7	...	...	...	...	547,740	0.6
All other metallic coated	835,316	1.1	381	...	...	...	835,697	1.0
Electrical	53,413	0.1	545,692	5.2	...	...	599,105	0.7
Strip:								
Hot rolled	570,346	0.8	80,021	0.8	9,198	0.8	659,565	0.7
Cold rolled	794,485	1.0	50,439	0.5	214,804	18.5	1,059,728	1.2
Total Sheets and Strip	33,855,181	45.0	2,310,108	21.8	758,257	65.2	36,923,546	42.4
TOTAL NET SHIPMENTS	75,255,285	100.0	10,595,448	100.0	1,163,398	100.0	87,014,131	100.0
Shipments to reporting companies	2,845,534	...	470,110	...	22,265	...	3,337,909	...
TOTAL GROSS SHIPMENTS	78,100,819	...	11,065,558	...	1,185,663	...	90,352,040	...

TABLE 14—NET SHIPMENTS ALL

(Thousands

Steel Products	1981 Ship-ments	1981 %	1980 Ship-ments	1980 %	1979 Ship-ments	1979 %	1978 Ship-ments	1978 %
Ingots and steel castings	414	0.5	445	0.6	504	0.5	516	0.5
Blooms, slabs and billets	2,168	2.5	2,185	2.6	2,095	2.1	1,969	2.0
Skelp	18	...	24	...	35	...	31	0.1
Wire rods	2,997	3.4	2,688	3.2	2,861	2.9	2,554	2.6
Structural shapes (3" & over)	4,621	5.3	4,861	5.8	5,303	5.3	4,667	4.7
Steel piling	282	0.3	346	0.4	293	0.3	360	0.4
Plates	7,397	8.5	8,080	9.6	9,035	9.0	8,601	8.8
Rails—Standard (over 60 lbs.)	907	1.0	1,085	1.3	1,122	1.1	946	1.0
—All other	47	0.1	53	0.1	48	0.1	38	...
Joint bars	10	...	17	...	19	...	14	...
Tie plates	218	0.3	205	0.2	337	0.3	255	0.2
Track spikes	71	0.1	85	0.1	101	0.1	97	0.1
Wheels (rolled and forged)	110	0.1	159	0.2	180	0.2	165	0.2
Axles	100	0.1	193	0.2	219	0.2	188	0.2
Bars—Hot rolled	6,628	7.6	5,961	7.1	8,493	8.5	8,758	9.0
—Bar-Size light shapes	1,142	1.3	950	1.1	1,466	1.5	1,277	1.3
—Reinforcing	4,371	5.0	4,684	5.6	5,303	5.3	4,704	4.8
—Cold finished	1,620	1.9	1,585	1.9	2,245	2.2	2,084	2.1
Tool steel	67	0.1	79	0.1	95	0.1	92	0.1
Pipe and tubing—Standard	1,858	2.1	1,773	2.1	1,952	1.9	2,054	2.1
—Oil country goods	4,241	4.9	3,612	4.3	2,458	2.5	2,647	2.7
—Line	2,047	2.4	1,798	2.1	1,569	1.6	1,571	1.6
—Mechanical	1,348	1.5	1,159	1.4	1,507	1.5	1,480	1.5
—Pressure	154	0.2	149	0.2	170	0.2	184	0.2
—Structural	598	0.7	569	0.7	541	0.5	423	0.4
—Stainless	39	...	41	0.1	46	...	40	0.1
Wire—Drawn	1,319	1.5	1,392	1.7	1,918	1.9	1,968	2.0
—Nails and staples	150	0.2	173	0.2	257	0.2	289	0.3
—Barbed and twisted	81	0.1	70	0.1	67	0.1	58	0.1
—Woven wire fence	95	0.1	92	0.1	122	0.1	109	0.1
—Bale ties and baling wire	49	0.1	41	...	85	0.1	87	0.1
Black plate	421	0.5	504	0.6	629	0.6	623	0.6
Tin plate	3,490	4.0	4,166	5.0	4,604	4.6	4,489	4.6
Tin Free Steel	948	1.1	978	1.1	1,003	1.0	918	0.9
Tin Mill products—All other	68	0.1	61	0.1	75	0.1	70	0.1
Sheets—Hot rolled	13,451	15.5	12,116	14.5	15,995	16.0	15,447	15.8
—Cold rolled	14,396	16.5	13,313	15.9	17,284	17.2	17,821	18.2
Sheets and strip—Galvanized—Hot dipped	5,375	6.2	4,787	5.7	5,810	5.8	5,889	6.0
—Electrolytic	548	0.6	457	0.5	531	0.5	541	0.6
—All other metallic coated	836	1.0	722	0.9	975	1.0	997	1.0
—Electrical	599	0.7	601	0.7	697	0.7	639	0.6
Strip—Hot rolled	560	0.7	669	0.8	984	1.0	1,027	1.0
—Cold rolled	1,060	1.2	930	1.1	1,230	1.2	1,248	1.3
TOTAL STEEL PRODUCTS	87,014	100.0	83,853	100.0	100,262	100.0	97,935	100.0
Carbon	75,255	86.5	73,358	87.5	87,879	87.6	86,187	88.0
Stainless and heat resisting	1,163	1.3	1,127	1.3	1,361	1.4	1,191	1.2
Alloy (other than stainless)	10,596	12.2	9,368	11.2	11,022	11.0	10,557	10.8

OF STEEL PRODUCTS
GRADES

of net tons)

1977		1976		1975		1974		1973		1972	
Shipments	%	Shipments	%	Shipments	%	Shipments	%	Shipments	%	Shipments	%
423	0.5	488	0.6	559	0.7	684	0.6	614	0.6	413	0.5
1,736	1.9	1,967	2.2	2,020	2.5	2,937	2.7	3,095	2.8	2,580	2.8
31	...	28	...	34	0.1	27	...	...	...	6	...
1,804	2.0	1,901	2.1	1,298	1.6	1,861	1.7	2,040	1.8	1,919	2.1
4,035	4.4	3,857	4.3	4,697	5.9	6,548	6.0	6,556	5.9	5,237	5.7
347	0.4	330	0.4	424	0.5	662	0.6	525	0.5	419	0.5
7,529	8.3	7,160	8.0	8,761	11.0	10,919	10.0	9,678	8.7	7,553	8.2
1,109	1.2	1,303	1.5	1,179	1.5	924	0.8	916	0.8	921	1.0
87	0.1	87	...	70	0.1	66	0.1	51	...	36	...
17	...	19	...	29		30	...	21	...	18	...
264	0.3	250	0.3	222	0.3	269	0.2	216	0.2	199	0.2
108	0.1	105	0.1	88	0.1	88	0.1	86	0.1	84	0.1
189	0.2	175	0.2	216	0.2	221	0.2	240	0.2	212	0.2
144	0.2	128	0.2	161	0.2	187	0.2	159	0.1	131	0.2
8,369	9.2	7,822	8.8	7,410	9.3	10,080	9.2	9,729	8.7	8,550	9.3
993	1.1	842	0.9	736	0.9	982	0.9	1,034	0.9	750	0.8
4,179	4.6	3,876	4.3	3,666	4.6	5,089	4.6	5,135	4.6	4,454	4.9
1,794	1.9	1,618	1.8	1,486	1.8	2,250	2.1	2,161	1.9	1,675	1.8
85	0.1	76	0.1	69	0.1	113	0.1	111	0.1	90	0.1
1,853	2.0	1,782	2.0	2,096	2.6	2,918	2.6	2,979	2.7	2,443	2.7
2,405	2.6	1,678	1.9	2,577	3.2	2,262	2.1	1,736	1.6	1,277	1.4
1,330	1.5	1,019	1.1	1,721	2.2	2,378	2.2	2,008	1.8	1,943	2.1
1,362	1.5	1,260	1.4	1,202	1.5	1,503	1.4	1,585	1.4	1,219	1.3
218	0.2	197	0.2	332	0.4	324	0.3	241	0.2	185	0.2
290	0.3	298	0.3	258	0.3	411	0.4	548	0.5	513	0.6
32	0.1	31	0.1	42	0.1	53	...	36	...	29	...
1,894	2.1	1,921	2.1	1,625	2.0	2,527	2.3	2,559	2.3	2,270	2.5
278	0.3	281	0.3	265	0.3	332	0.3	362	0.3	355	0.4
55	...	71	0.1	31	0.1	68	0.1	90	0.1	100	0.1
113	0.1	134	0.1	124	0.2	128	0.1	134	0.1	125	0.1
60	0.1	54	0.1	59	0.1	117	0.1	100	0.1	102	0.1
636	0.7	614	0.7	486	0.6	701	0.6	694	0.6	605	0.6
4,700	5.1	4,784	5.3	4,151	5.2	5,549	5.1	5,288	4.7	4,464	4.9
974	1.1	967	1.1	1,000	1.2	1,211	1.1	1,243	1.1	988	1.1
72	0.1	71	0.1	50	0.1	67	0.1	91	0.1	78	0.1
14,558	16.0	15,090	16.9	11,222	14.1	15,774	14.4	16,885	15.2	14,036	15.3
17,684	19.4	18,265	20.4	12,841	16.1	18,275	16.7	20,377	18.3	16,122	17.6
5,298	5.8	4,914	5.5	3,537	4.4	5,772	5.3	6,515	5.9	5,196	5.6
364	0.4	265	0.3	188	0.2	333	0.3	371	0.3	321	0.3
923	1.0	844	0.9	555	0.7	998	0.9	947	0.9	691	0.7
597	0.6	577	0.7	563	0.7	859	0.8	862	0.8	709	0.8
1,082	1.2	1,196	1.3	961	1.2	1,405	1.3	1,869	1.7	1,533	1.7
1,186	1.3	1,152	1.3	901	1.1	1,575	1.4	1,543	1.4	1,253	1.4
91,147	100.0	89,447	100.0	79,957	100.0	109,472	100.0	111,430	100.0	91,805	100.0
81,268	89.2	80,320	89.8	70,764	88.5	97,948	89.5	100,924	90.6	83,173	90.6
1,118	1.2	1,019	1.1	757	0.9	1,345	1.2	1,134	1.0	855	0.9
8,761	9.6	8,108	9.1	8,436	10.6	10,179	9.3	9,372	8.4	7,777	8.5

TABLE 15—NET SHIPMENTS OF STEEL ALL

(Thousands

Market Classifications	1981 Ship-ments	1981 %	1980 Ship-ments	1980 %	1979 Ship-ments	1979 %	1978 Ship-ments	1978 %
Steel for converting and processing	5,058	5.8	4,117	4.9	5,058	5.0	4,612	4.7
Independent forgers (not elsewhere classified)	1,035	1.2	933	1.1	1,254	1.3	1,192	1.2
Industrial fasteners	648	0.7	590	0.7	934	0.9	870	0.9
Steel service centers & distributors	17,637	20.3	16,172	19.3	18,246	18.2	17,333	17.7
Construction, including maintenance	8,446	9.7	8,742	10.4	9,978	10.0	9,612	9.8
Contractors' products	3,230	3.7	3,148	3.8	3,745	3.7	3,480	3.6
Subtotal construction and contractors' products	11,676	13.4	11,890	14.2	13,723	13.7	13,092	13.4
Automotive:								
Vehicles, parts, etc.	12,808	14.7	11,855	14.2	18,099	18.0	20,651	21.1
Independent forgers	346	0.4	269	0.3	522	0.5	602	0.6
Total	13,154	15.1	12,124	14.5	18,621	18.5	21,253	21.7
Rail transportation:								
Freight cars, pass. cars & locomotives	976	1.1	1,884	2.3	2,445	2.4	2,188	2.2
Rails and all other	1,186	1.4	1,271	1.5	1,666	1.7	1,361	1.4
Total	2,162	2.5	3,155	3.8	4,111	4.1	3,549	3.6
Shipbuilding and marine equipment	1,101	1.3	1,201	1.4	924	0.9	845	0.9
Aircraft and aerospace	37	...	53	0.1	60	0.1	60	0.1
Oil and gas industry	6,238	7.2	5,371	6.4	3,739	3.7	4,140	4.3
Mining, quarrying and lumbering	493	0.6	454	0.5	569	0.6	508	0.5
Agricultural:								
Agricultural machinery	820	0.9	852	1.0	1,306	1.3	1,080	1.1
All other	409	0.5	388	0.5	665	0.7	725	0.7
Total	1,229	1.4	1,240	1.5	1,971	2.0	1,805	1.8
Machinery, industrial equipment & tools	4,624	5.3	4,543	5.4	5,996	6.0	5,992	6.1
Electrical equipment	2,600	3.0	2,441	2.9	2,819	2.8	2,811	2.9
Appliances, utensils and cutlery	1,775	2.0	1,725	2.1	2,140	2.1	2,094	2.1
Other domestic & commercial equipment	1,622	1.9	1,701	2.0	2,073	2.1	1,889	1.9
Containers, packaging & shipping materials:								
Cans and closures	3,786	4.4	4,163	5.0	4,994	4.9	4,950	4.9
Barrels, drums and shipping pails	744	0.8	725	0.9	939	1.0	809	0.9
All other	762	0.9	663	0.7	839	0.9	836	0.9
Total	5,292	6.1	5,551	6.6	6,772	6.8	6,595	6.7
Ordnance and other military	166	0.2	177	0.2	204	0.2	207	0.2
Export (reporting companies only)	1,845	2.1	2,595	3.1	2,007	2.0	1,224	1.3
Nonclassified shipments	8,622	9.9	7,820	9.3	9,041	9.0	7,864	8.0
TOTAL SHIPMENTS	87,014	100.0	83,853	100.0	100,262	100.0	97,935	100.0

PRODUCTS BY MARKET CLASSIFICATIONS
GRADES

of net tons)

1977		1976		1975		1974		1973		1972	
Shipments	%	Shipments	%	Shipments	%	Shipments	%	Shipments	%	Shipments	%
3,679	4.0	4,036	4.5	3,255	4.1	4,486	4.1	4,714	4.2	4,199	4.6
998	1.1	952	1.1	1,098	1.4	1,339	1.2	1,213	1.1	1,007	1.1
848	0.9	912	1.0	675	0.8	1,331	1.2	1,278	1.1	1,030	1.1
15,346	16.8	14,615	16.3	12,700	15.9	20,400	18.6	20,383	18.3	16,797	18.3
7,553	8.3	7,508	8.4	8,119	10.2	11,360	10.4	10,731	9.6	8,589	9.4
4,500	4.9	4,502	5.0	3,927	4.9	6,249	5.7	6,459	5.8	5,055	5.5
12,053	13.2	12,010	13.4	12,046	15.1	17,609	16.1	17,190	15.4	13,644	14.9
20,882	22.9	20,667	23.1	14,750	18.4	18,256	16.7	22,468	20.2	17,639	19.2
608	0.7	684	0.8	464	0.6	672	0.6	749	0.6	578	0.6
21,490	23.6	21,351	23.9	15,214	19.0	18,928	17.3	23,217	20.8	18,217	19.8
1,709	1.9	1,469	1.6	1,836	2.3	2,132	1.9	1,997	1.8	1,511	1.6
1,529	1.7	1,587	1.8	1,316	1.6	1,285	1.2	1,231	1.1	1,219	1.3
3,238	3.6	3,056	3.4	3,152	3.9	3,417	3.1	3,228	2.9	2,730	2.9
869	1.0	969	1.1	1,413	1.8	1,339	1.2	1,019	0.9	872	1.0
63	0.1	59	0.1	69	0.1	79	0.1	69	0.1	63	0.1
3,650	4.0	2,653	3.0	4,171	5.2	4,210	3.9	3,405	3.1	2,789	3.0
486	0.5	536	0.6	596	0.7	644	0.6	534	0.5	502	0.5
1,017	1.1	1,209	1.4	1,055	1.3	1,236	1.1	1,155	1.0	962	1.1
631	0.7	575	0.6	374	0.5	623	0.6	617	0.6	477	0.5
1,648	1.8	1,784	2.0	1,429	1.8	1,859	1.7	1,772	1.6	1,439	1.6
5,566	6.1	5,180	5.8	5,173	6.5	6,440	5.9	6,351	5.7	5,396	5.9
2,639	2.9	2,671	3.0	2,173	2.7	3,242	3.0	3,348	3.0	2,824	3.1
2,129	2.3	1,950	2.2	1,653	2.1	2,412	2.2	2,747	2.5	2,362	2.6
1,846	2.0	1,813	2.0	1,390	1.7	1,941	1.8	1,990	1.8	1,816	2.0
5,173	5.7	5,301	5.9	4,859	6.0	6,349	5.8	6,070	5.5	5,128	5.6
768	0.8	859	1.0	601	0.8	1,026	0.9	910	0.8	748	0.8
773	0.9	754	0.8	593	0.8	843	0.8	831	0.7	740	0.8
6,714	7.4	6,914	7.7	6,053	7.6	8,218	7.5	7,811	7.0	6,616	7.2
193	0.2	219	0.2	405	0.5	654	0.6	918	0.8	899	0.9
1,076	1.2	1,839	2.1	1,755	2.2	3,961	3.6	3,138	2.8	2,555	2.8
6,616	7.3	5,928	6.6	5,537	6.9	6,963	6.3	7,105	6.4	6,048	6.6
91,147	100.0	89,447	100.0	79,957	100.0	109,472	100.0	111,430	100.0	91,805	100.0

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SEE FOLDOUT NUMBER 2

EXPORTS AND IMPORTS

The following tables, compiled from Department of Commerce report on Foreign Commerce and Navigation of the United States, give an analysis of the tonnage of iron and steel products exported and imported during the period 1977-1981. Exports and imports of iron and steel products not stated by weight in the reports are necessarily omitted.

TABLE 17—EXPORTS OF IRON AND STEEL PRODUCTS

(Net tons)

Products	1981 P	1980	1979	1978	1977
Steel Mill Products:					
Ingots, blooms, billets, slabs, etc.	540,598	912,309	357,965	231,098	248,422
Wire rods	101,774	212,347	26,903	38,863	83,934
Structural shapes (3" & over)	131,379	151,077	139,062	124,445	96,551
Sheet piling	7,609	2,677	6,822	2,830	1,651
Plates	199,584	207,840	237,866	172,068	60,660
Rails—Standard	56,008	49,046	15,969	33,249	17,051
—Other	13,307	71,346	10,495	21,687	46,195
Rail joints and tie plates	9,011	9,620	8,686	13,081	20,245
Track spikes	†	†	†	†	1,970
Wheels and axles	7,386	4,517	2,496	8,573	4,537
Concrete reinforcing bars	137,318	166,168	86,281	111,346	75,968
Bar shapes under 3"	16,174	25,237	18,235	18,648	8,182
Bars—Hot rolled—Carbon	91,042	80,914	68,489	42,346	62,388
—Alloy	58,856	126,466	45,837	64,849	39,076
Cold finished bars	25,389	27,647	29,071	31,448	35,768
Tool steel	3,866	3,392	4,461	5,133	8,609
Hollow Drill Steel	4,818	4,244	7,870	8,539	NA
Pipe—Black	†	†	†	†	58,063
—Galvanized	†	†	†	†	9,653
—Line	47,822	41,294	86,606	84,980	30,303
—Standard	118,636	118,163	154,550	117,075	NA
Oil country goods	127,584	133,610	284,621	155,337	139,753
Tubing—Pressure	23,743	29,608	24,564	26,303	31,340
—Mechanical	44,263	42,241	57,220	78,981	48,193
—Structural	4,865	4,444	11,426	9,262	NA
Other pipe and tubing	105,523	100,790	109,428	90,060	89,904
Wire—Alloy and Stainless	†	†	†	†	4,459
—Coated or uncoated	9,643	9,451	10,674	12,906	NA
—Carbon	25,162	27,101	21,335	24,538	41,016
—Barbed, Iron or Steel	2,549	6,091	2,813	1,057	1,347
—Fencing	†	†	†	†	4,650
—Nails and staples	11,948	11,596	10,320	23,910	12,848
Black plate	89,720	179,458	125,548	79,199	23,544
Tin plate	364,001	692,100	420,711	348,947	325,418
Circles, cobbles and butts	†	†	†	†	23,564
Terne plate & terne coated	17,089	14,924	19,694	25,317	1,974
Sheets—Hot rolled	195,292	211,291	100,525	98,681	49,147
—Cold rolled	75,768	129,341	115,652	121,649	104,768
—Enameling	†	†	†	†	626
Sheets & strip—Galv. & other coated	131,263	193,133	130,131	129,507	101,550
—Electrical	†	†	†	†	11,097
—Silicon alloy	17,707	18,563	30,798	15,192	NA
Strip—Hot rolled	36,602	40,760	15,603	13,541	23,329
—Cold rolled	50,544	41,877	46,214	37,043	45,348
Total Steel Mill Products	2,903,793	4,100,683	2,817,935	2,421,688	2,003,101
Carbon	2,190,483	3,060,413	2,284,300	1,881,062	1,708,396
Alloy	628,432	907,906	447,925	469,054	224,581
Stainless	84,878	132,364	85,710	71,572	70,124

TABLE 17—EXPORTS OF IRON AND STEEL PRODUCTS (Continued)

(Net tons)

Products	1981 P	1980	1979	1978	1977
Other Steel Products:					
Plates—Fabricated	10,473	10,282	6,201	10,960	30,982
Structural shapes—Fabricated	172,392	175,038	121,296	119,557	126,829
Sashes and frames	12,803	12,471	10,237	11,116	14,804
Relaying rails	†	†	†	†	31,945
Rails-used	56,777	85,592	70,224	50,428	NA
Railway track material	4,461	4,502	4,770	5,593	14,108
Bolts, nuts	70,258	56,123	95,094	101,814	124,636
Architectural & ornamental work, n.e.c.	10,188	10,405	4,157	5,821	11,093
Welding electrodes	†	†	†	†	8,047
Wire cable, rope, strand & cordage	20,511	17,222	14,292	14,621	16,672
Fabricated wire products	12,653	11,750	11,854	14,034	4,418
Wire springs	15,778	13,799	16,386	†	44,208
Welded wire mesh	7,143	14,691	6,870	9,370	NA
Containers	†	†	†	†	1,899
Sheets—Fabricated	29,763	18,477	16,161	20,248	16,619
Steel castings	†	†	†	†	23,005
Cast steel rolls	5,073	4,263	3,432	3,669	NA
Forgings	55,192	47,416	56,013	55,122	45,421
Chains and parts	11,865	11,405	10,072	10,786	11,158
Rigid conduit	†	†	†	†	17,206
Pipe & tube fittings	70,161	68,109	56,640	79,480	32,531
Total Other Steel Products	568,486	561,545	503,699	512,619	575,581
Total Steel Products	3,472,279	4,662,228	3,321,634	2,934,307	2,578,682
Iron Products and Ferroalloys:					
Chilled iron railway car wheels	†	†	†	†	749
Cast iron pressure pipe	60,492	28,020	24,363	51,673	43,631
Cast iron soil pipe	6,587	20,234	9,790	34,222	18,836
Cast iron fittings not malleable	18,413	25,821	16,878	15,301	32,331
Cast iron fittings malleable	7,843	8,768	9,615	10,700	
Iron castings	113,518	134,717	141,193	320,238	411,502
Pig iron	16,274	72,923	105,116	51,116	51,357
Sponge iron, iron or steel powders	18,212	26,167	20,566	16,063	NA
Ferroalloys	61,107	128,460	113,163	65,664	80,912
Total Iron Products & Ferroalloys	302,446	445,110	440,684	564,977	639,318
GRAND TOTAL	3,774,725	5,107,338	3,762,318	3,499,284	3,218,000
Iron and steel scrap	6,415,379	11,168,014	11,053,877	9,037,921	6,174,813

† Not reported separately as of Jan. 1, 1978.

TABLE 18—EXPORTS OF IRON AND STEEL PRODUCTS

(Net tons)

Products	1981 P	1980	1979	1978	1977	1976	1975	1974	1973	1972
Steel Mill Products:										
Ingots, blooms, billets, slabs, etc.	540,598	912,309	357,965	221,098	248,422	261,647	324,942	807,418	550,728	418,203
Wire rods	101,774	212,347	26,903	38,863	83,934	100,033	40,617	65,851	89,781	122,895
Structural shapes and piling	138,988	153,754	145,884	127,275	98,202	99,710	186,118	367,079	260,820	111,414
Plates	199,534	207,840	207,860	172,068	60,660	76,627	233,499	426,987	291,444	74,943
Rails and accessories	85,712	134,529	40,646	76,590	89,998	167,193	198,948	130,453	110,611	116,098
Bars and tool steel	337,463	434,068	260,244	282,309	229,991	282,587	264,021	753,747	402,846	202,628
Pipe and tubing	472,436	470,150	728,415	561,998	407,209	493,685	1,013,764	870,200	572,094	408,228
Wire and wire products	49,302	51,239	45,142	62,411	64,320	67,405	49,782	75,804	52,683	39,307
Tin mill products	470,810	886,482	565,953	453,463	374,500	412,989	271,721	577,983	516,344	338,200
Sheets and strip	507,176	634,965	458,923	415,613	345,865	692,130	369,712	1,757,626	1,205,100	1,040,771
Total Steel Mill Products	2,903,793	4,100,683	2,817,935	2,421,688	2,003,101	2,654,006	2,953,124	5,833,148	4,052,451	2,872,687
Other Steel Products	568,486	561,545	503,699	512,619	575,581	603,719	618,152	688,449	496,113	328,075
Total Steel Products	3,472,279	4,662,228	3,321,634	2,934,307	2,578,682	3,257,725	3,571,276	6,521,597	4,548,564	3,200,762
Iron Products and Ferroalloys	302,446	445,110	440,684	564,977	639,318	607,091	575,074	610,737	511,006	404,814
GRAND TOTAL	3,774,725	5,107,338	3,762,318	3,499,284	3,218,000	3,864,816	4,146,350	7,132,334	5,059,570	3,605,576

TABLE 19—EXPORTS OF STEEL MILL PRODUCTS

(Net tons)

Months	1981 P	1980	1979	1978	1977	1976	1975	1974	1973	1972
January	255,736	197,768	192,619	160,338	162,280	150,444	288,760	454,844	288,253	208,019
February	212,903	295,675	164,693	207,583	204,787	177,031	257,148	448,208	220,684	221,246
March	260,094	276,266	216,844	191,463	201,535	211,534	282,109	502,733	323,203	260,825
April	291,048	321,393	226,446	204,708	282,818	228,524	269,788	533,431	339,546	198,514
May	259,418	337,821	236,756	255,466	178,011	264,744	268,019	626,899	371,734	244,565
June	279,433	417,941	255,187	270,996	151,195	231,947	255,744	632,630	322,572	210,519
July	217,564	398,417	233,706	174,335	135,753	318,432	263,851	636,764	342,804	219,613
August	194,438	448,915	249,507	208,456	142,849	280,176	270,695	488,249	323,802	301,073
September	228,080	400,518	244,488	174,305	170,806	193,296	202,239	345,801	281,001	304,478
October	238,084	366,179	281,453	217,741	125,386	183,082	228,281	386,800	373,306	251,774
November	244,423	315,875	226,700	194,487	148,396	186,043	184,907	296,421	388,073	207,399
December	227,490	323,827	289,312	248,453	149,161	228,276	181,659	470,283	473,242	244,610
TOTAL *	2,903,793	4,100,683	2,817,935	2,421,688	2,003,101	2,654,006	2,953,124	5,833,148	4,052,451	2,872,687

* Revised totals include adjustments not shown in monthly figures.

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SEE FOLDOUT NUMBER 3

TABLE 21—IMPORTS OF IRON AND STEEL PRODUCTS

(Net tons)

Products	1981 P	1980	1979	1978	1977
Steel Mill Products:					
Ingots, blooms, slabs, and billets, etc.	790,062	155,343	344,693	413,899	297,711
Wire rods	888,442	829,259	985,414	1,326,580	1,341,575
Structural shapes (plain 3" and over)	1,976,796	1,739,543	1,881,967	1,798,963	1,743,228
Sheet piling	98,712	89,423	102,815	128,004	73,959
Plates	2,447,688	2,059,713	1,819,812	2,924,989	2,116,459
Rails and track accessories	282,868	271,172	213,676	189,159	149,960
Wheels and axles	35,701	142,904	99,547	96,726	57,231
Concrete reinforcing bars	52,645	78,639	116,955	109,956	92,602
Bar shapes under 3"	105,417	136,947	231,614	239,744	263,177
Bars—Hot rolled—Carbon	418,008	366,663	452,435	597,828	704,298
—Alloy	176,564	129,144	153,887	182,796	145,025
—Cold finished	232,005	146,782	170,501	204,489	156,066
Hollow drill steel	1,442	1,814	2,022	2,201	2,739
Pipe and tubing—Welded	2,740,822	1,862,041	1,750,465	1,743,339	1,393,189
—Other	3,827,734	1,914,494	1,169,554	1,302,571	1,080,551
Round and shaped wire	369,173	377,789	439,851	576,056	513,200
Flat wire	15,847	17,264	20,817	23,221	20,209
Bale ties	83	437	85	311	255
Galvanized wire fencing	8,452	8,314	11,261	19,159	16,014
Wire nails	303,478	292,133	336,814	428,375	401,575
Barbed wire	26,942	18,937	18,429	27,659	25,981
Black plate	97,842	68,245	82,070	46,015	16,939
Tin plate	286,271	308,353	259,538	376,324	444,077
Terne plate	2,142	944	3,243	4,227	4,118
Sheets—Hot rolled	1,628,144	1,491,786	2,161,757	2,617,023	2,674,157
—Cold rolled	1,626,000	1,477,134	2,412,987	3,236,859	3,454,522
—Coated (incl. Galvanized)	1,303,586	1,349,770	2,139,148	2,312,940	1,918,852
—Coated alloy	9	23	3	58	178
Strip—Hot rolled	24,939	15,806	27,349	35,646	32,396
—Cold rolled	50,870	46,972	49,582	49,272	41,541
—Hot and cold rolled—Alloy	23,091	15,328	21,253	25,076	20,955
Sheets—Other—Electric coated	56,565	81,854	38,591	95,117	103,873
Total Steel Mill Products	19,898,340	15,494,970	17,518,135	21,134,582	19,306,612
Carbon	18,615,633	14,783,625	16,620,845	20,181,302	18,548,909
Alloy	1,091,514	558,671	728,188	753,543	579,627
Stainless	191,193	152,674	169,102	199,737	178,076
Other Steel Products:					
Structural shapes, fabricated	167,567	174,422	180,412	125,853	128,996
Shapes—Cold formed	485	368	534	330	393
Sashes and frames	703	501	213	164	503
Fence or sign posts	1,162	2,154	2,131	2,412	8,575
Wire—Nonmetallic covered	1,006	331	632	533	392
Wire rope	121,414	93,622	114,266	98,830	90,670
Wire strand	148,541	157,396	171,573	166,055	140,300
Welded wire fabric	13,730	19,027	23,203	25,994	14,826
Other nails and staples	26,243	24,684	30,784	33,762	31,130
Bale ties, made from strip	1,389	2,050	8,046	28,207	37,362
Bolts, nuts and rivets	445,312	429,679	499,578	532,576	442,987
Grinding balls	14,347	16,147	26,578	22,305	12,810
Blanks, nonrectangular flat rolled	4,830	6,011	6,753	10,025	19,035
Rigid conduit	1,920	2,053	3,094	3,323	851
Pipe and tube fittings	132,066	88,264	81,714	79,209	56,403
Total Other Steel Products	1,080,715	1,016,709	1,149,511	1,129,578	985,233
Total Steel Products	20,979,055	16,511,679	18,667,646	22,264,160	20,291,845
Iron Products and Ferroalloys:					
Bar iron, iron slabs and blooms, etc.	177	1,144	65	29	19
Cast iron soil pipe and fittings	1,040	742	807	1,467	900
Other cast iron pipe and fittings	7,841	5,842	8,701	9,828	6,770
Malleable cast iron pipe fittings	16,360	17,275	17,324	14,669	13,834
Castings and forgings	122,978	117,655	135,056	92,471	48,725
Pig iron	433,017	400,035	476,384	655,416	372,767
Sponge iron	75,710	65,793	104,154	97,641	140,338
Ferromanganese (manganese content)	516,651	473,399	638,724	527,926	416,082
Ferrosilicon (silicon content)	110,742	46,967	74,464	85,916	75,248
Ferrochromium (chromium content)	244,314	162,443	113,521	174,814	134,208
Other ferroalloys	121,495	75,046	89,708	143,949	157,387
Total Iron Products and Ferroalloys	1,650,325	1,366,341	1,658,908	1,804,126	1,366,278
GRAND TOTAL	22,629,380	17,878,020	20,326,554	24,068,286	21,658,123
Iron and Steel Scrap	561,768	558,142	760,278	793,948	625,381

TABLE 22—IMPORTS OF IRON AND STEEL PRODUCTS

(Net tons)

Products	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
Steel Mill Products:										
Ingots, blooms, billets, slabs, etc.	790,062	155,343	344,693	413,899	297,711	240,110	242,836	182,857	172,305	261,696
Wire rods	888,442	829,259	985,414	1,326,580	1,341,575	1,120,744	1,112,772	1,950,624	1,416,252	1,402,894
Structural shapes and piling	2,075,508	1,828,966	1,984,782	1,926,967	1,817,187	1,424,451	876,161	1,234,489	1,337,999	1,712,119
Plates	2,447,688	2,059,713	1,819,812	2,924,989	2,116,459	1,596,429	1,403,265	1,622,952	1,348,753	1,685,885
Rails and accessories	318,569	414,076	313,223	285,885	207,191	113,667	175,418	117,482	77,758	74,803
Bars and tool steel	986,081	859,989	1,127,414	1,337,014	1,363,907	935,790	923,705	1,859,093	1,700,742	1,972,663
Pipe and tubing	6,568,556	3,776,535	2,920,019	3,045,910	2,473,740	2,005,152	1,684,766	1,894,524	1,658,784	1,843,402
Wire and wire products	723,975	714,874	827,257	1,074,781	977,234	815,359	647,087	1,047,942	944,958	1,041,003
Tin mill products	386,255	377,542	344,851	426,566	465,134	324,470	414,860	327,321	473,671	524,494
Sheets and strip	4,713,204	4,478,673	6,850,670	8,371,991	8,246,474	5,708,433	4,531,572	5,722,754	6,018,460	7,162,048
Total Steel Mill Products	19,898,340	15,494,970	17,518,135	21,134,582	19,306,612	14,284,605	12,012,442	15,970,038	15,149,682	17,681,007
Other Steel Products	1,080,715	1,016,709	1,149,511	1,129,578	985,233	651,939	656,963	846,037	704,294	668,062
Total Steel Products	20,979,055	16,511,679	18,667,646	22,264,160	20,291,845	14,936,544	12,669,405	16,816,075	15,853,976	18,349,069
Iron Products and Ferroalloys	1,650,325	1,366,341	1,658,908	1,804,126	1,366,278	1,357,184	1,249,840	1,146,599	1,154,321	1,200 755
GRAND TOTAL	22,629,380	17,878,020	20,326,554	24,068,286	21,658,123	16,293,728	13,919,245	17,962,674	17,008,297	19,558,824

TABLE 23—IMPORTS OF STEEL MILL PRODUCTS

(Net tons)

Months	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
January	1,281,332	1,265,093	1,264,346	1,537,793	1,121,267	1,006,896	1,801,358	827,241	1,380,782	1,093,184
February	1,234,087	1,666,905	1,329,115	2,219,592	1,002,459	966,145	1,192,004	829,881	1,305,921	1,129,337
March	1,141,878	1,119,981	1,095,893	1,988,233	1,175,410	1,033,899	1,153,380	891,779	1,169,807	1,095,494
April	1,760,883	1,249,874	1,071,955	2,174,892	1,114,786	948,334	959,036	971,269	1,050,822	929,875
May	1,772,326	1,614,653	1,654,757	1,511,255	1,817,390	1,071,425	856,158	1,142,356	1,603,920	1,603,175
June	1,665,347	1 202,689	1,365,619	1,359,820	1,818,620	1,354,854	927,035	1,232,316	1,228,765	1,598,803
July	1,663,042	1,079,040	1,514,423	1,784,814	1,582,037	1,190,080	804,651	1,292,589	1,380,407	1,531,098
August	2,226,364	1,374,121	1,783,935	1,870,390	1,831,115	1,201,166	748,176	1,607,333	1,315,662	1,787,250
September	1,747,583	1,063,755	1,640,695	1,584,169	2,057,413	1,282,664	697,209	1,259,530	1,074,689	1,569,825
October	1,871,511	1,141,939	1,603,188	1,715,239	1,761,726	1,267,934	817,768	2,021,301	1,234,522	1,910,435
November	1,921,117	1,179,301	1,651,951	2,016,345	1,937,947	1,596,834	902,900	1,925,109	1,312,797	1,823,991
December	1,612,870	1,533,920	1,542,258	1,372,040	2,086,549	1,364,403	1,152,767	1,909,334	1,091,588	1,608,540
TOTAL *	19,898,340	15,494,970	17,518,135	21,134,582	19,306,612	14,284,605	12,012,442	15,970,038	15,149,682	17,681,007

* Revised totals include adjustments not shown in monthly figures.

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SEE FOLDOUT NUMBER 4

TABLE 25—IMPORTS OF TOTAL STEEL MILL PRODUCTS BY COUNTRIES OF ORIGIN

(Net Tons)

	1981			1980			1979			1978			1977		
	Net Tons	% Total	% Apparent Supply **	Net Tons	% Total	% Apparent Supply **	Net Tons	% Total	% Apparent Supply **	Net Tons	% Total	% Apparent Supply **	Net Tons	% Total	% Apparent Supply **
Canada	2,898,795	14.6	2.8	2,369,501	15.3	2.5	2,353,883	13.4	2.0	2,363,856	11.2	2.0	1,892,032	9.8	1.7
Mexico	40,904	0.2	—	67,395	0.4	0.1	159,627	0.9	0.1	213,978	1.0	0.2	223,612	1.2	0.2
Brazil	547,884	2.8	0.5	457,724	3.0	0.5	432,238	2.5	0.4	292,683	1.4	0.3	65,290	0.3	0.1
Argentina	61,121	0.3	0.1	18,253	0.1	—	37,579	0.2	—	239,119	1.1	0.2	89,956	0.5	0.1
Total Latin America	782,156	3.9	0.8	629,938	4.1	0.7	647,069	3.7	0.6	772,828	3.6	0.7	391,400	2.1	0.4
United Kingdom	573,676	2.9	0.6	236,784	1.5	0.2	433,727	2.5	0.4	671,765	3.2	0.6	818,159	4.2	0.7
Netherlands	462,572	2.3	0.4	340,302	2.2	0.4	499,981	2.8	0.4	685,622	3.2	0.6	607,829	3.1	0.5
Belgium-Luxembourg	1,108,593	5.6	1.1	870,058	5.6	0.9	956,405	5.5	0.8	1,238,325	5.9	1.1	1,146,688	5.9	1.1
France	1,289,365	6.5	1.2	936,987	6.2	1.0	1,340,670	7.7	1.2	1,758,332	8.3	1.5	1,586,164	8.2	1.5
West Germany	2,164,352	10.9	2.1	1,298,068	8.4	1.4	1,868,076	10.7	1.6	2,294,516	10.9	1.9	2,006,634	10.4	1.9
Italy	768,121	3.9	0.7	174,054	1.1	0.2	291,671	1.7	0.3	788,684	3.7	0.7	662,702	3.4	0.6
Total EEC *	6,482,137	32.6	6.2	3,886,777	25.1	4.1	5,405,389	30.9	4.7	7,463,894	35.3	6.4	6,832,850	35.4	6.3
Sweden	169,503	0.9	0.2	91,921	0.6	0.1	194,031	1.1	0.2	227,140	1.1	0.2	125,964	0.7	0.1
Finland	124,545	0.6	0.1	36,463	0.2	—	145,985	0.8	0.1	213,844	1.0	0.2	138,939	0.7	0.1
Poland	167,498	0.8	0.2	119,498	0.8	0.1	117,121	0.7	0.1	364,066	1.7	0.3	170,391	0.9	0.2
Spain	729,798	3.7	0.7	462,430	3.0	0.5	380,190	2.2	0.3	665,251	3.1	0.6	310,104	1.6	0.3
Romania	307,364	1.5	0.3	57,581	0.4	0.1	38,555	0.2	—	107,058	0.5	0.1	44,444	0.2	—
Total Europe	8,077,373	40.6	7.8	4,743,912	30.6	5.0	6,392,770	36.5	5.6	9,211,103	43.6	7.9	7,681,040	39.8	7.1
Japan	6,220,083	31.3	6.0	6,006,813	38.8	6.3	6,336,003	36.2	5.5	6,487,166	30.7	5.6	7,820,376	40.5	7.2
Korea Republic	1,218,381	6.1	1.2	1,039,895	6.7	1.1	985,666	5.6	0.9	1,052,122	5.0	0.9	790,039	4.1	0.7
Taiwan	131,192	0.7	0.1	85,949	0.6	0.1	108,515	0.6	0.1	250,369	1.2	0.2	67,234	0.3	0.1
Republic of So. Africa	371,098	1.9	0.4	440,661	2.8	0.5	485,307	2.8	0.4	694,986	3.3	0.6	463,096	2.4	0.4
Total Asia & Africa	8,011,266	40.3	7.7	7,619,964	49.2	8.0	7,965,000	45.5	6.9	8,606,107	40.7	7.4	9,237,188	47.8	8.5
Australia & Oceania	128,750	0.6	0.1	131,655	0.8	0.1	159,413	0.9	0.1	180,688	0.9	0.1	104,952	0.5	0.1
Total Imports of Steel Mill Products	19,898,340	100.0	19.1	15,494,970	100.0	16.3	17,518,135	100.0	15.2	21,134,582	100.0	18.1	19,306,612	100.0	17.8

* Includes total for Denmark and Ireland. Includes Greece in 1981.
Country detail may not add to regional total because of omissions of some countries.
** As developed in table 1A of this Report.

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SEE FOLDOUT NUMBER 5

RAW STEEL PRODUCTION

Raw steel is defined as steel in the first solid state after melting suitable for further processing or sale, including ingots, steel for foundry castings and strand or pressure cast blooms, billets, slabs, or other product forms.

Raw steel production capability is defined as the tonnage capability to produce raw steel for a sustained full order book.

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SEE FOLDOUT NUMBER 6

TABLE 28—RAW STEEL PRODUCTION BY STATES

(Thousands of net tons)

States	1981	1980	1979	1978	1977
New York	3,147	2,675	4,035	4,203	3,958
Pennsylvania	24,066	23,517	28,213	28,070	25,737
R.I., Conn., N.J., Del., Md.	5,777	5,161	6,638	6,350	5,306
Va., W. Va., Ga., Fla., N.C., S.C., La.	6,497	6,066	6,788	6,444	5,484
Kentucky	2,397	2,141	2,438	2,523	2,289
Ala., Tenn., Miss., Ark.	3,585	3,452	4,487	4,305	3,963
Ohio	18,096	16,100	21,082	21,268	21,466
Indiana	22,662	19,820	22,912	24,351	21,472
Illinois	9,105	8,961	11,729	12,443	10,872
Michigan	8,943	7,877	10,922	10,789	10,051
Minn., Mo., Okla., Texas, Nebr., Iowa	9,065	8,642	8,260	7,845	6,753
Ariz., Colo., Utah, Wash., Ore., Hawaii	4,842	4,795	5,165	4,968	4,758
California	2,653	2,628	3,672	3,472	3,224
TOTAL	120,828	111,835	136,341	137,031	125,333

TABLE 29—MONTHLY AND QUARTERLY RAW STEEL PRODUCTION AND CAPABILITY UTILIZATION

(Thousands of net tons)

Periods	1981 Net Tons	1981 Capability Utilization * %	1980 Net Tons	1980 Capability Utilization * %	1979 Net Tons	1979 Capability Utilization * %	1978 Net Tons	1978 Capability Utilization * %	1977 Net Tons	1977 Capability Utilization * %
January	10,596	79.9	10,701	82.7	11,105	83.5	10,301	77.2	9,089	66.8
February	10,028	83.7	10,332	85.3	10,562	87.9	9,643	80.1	8,859	72.1
March	11,745	88.6	11,439	88.4	12,576	94.5	11,083	83.1	11,049	81.2
1st Quarter	32,363	84.1	32,472	85.4	34,227	88.6	31,027	80.1	28,997	73.4
April	11,243	87.7	10,658	83.0	12,196	93.4	11,528	88.5	11,167	83.3
May	11,423	86.2	9,226	69.6	12,789	94.8	12,320	91.5	12,201	88.6
June	10,462	81.5	7,501	58.4	12,230	93.7	11,861	91.1	11,384	84.9
2nd Quarter	33,068	85.0	27,385	70.3	37,213	94.0	35,709	90.4	34,752	85.5
First 6 months	65,431	84.5	59,857	77.8	71,440	91.0	66,736	85.3	63,749	79.5
July	10,160	77.6	6,796	53.1	11,821	89.9	11,388	85.1	10,319	76.7
August	10,120	77.3	7,018	54.4	11,309	86.0	11,550	86.3	10,393	77.2
September	9,618	75.9	7,767	62.6	10,541	82.8	11,467	88.1	10,050	77.2
3rd Quarter	29,898	76.9	21,581	56.8	33,659	86.2	34,405	86.5	30,762	77.0
9 Months	96,329	82.0	81,438	70.8	105,099	89.6	101,141	85.7	94,511	78.7
October	9,003	68.7	9,442	72.2	10,810	84.4	12,105	89.8	10,442	77.7
November	7,962	62.8	10,057	79.5	9,997	80.6	11,654	89.4	9,748	75.0
December	7,671	58.6	10,180	77.8	9,996	78.0	11,812	87.7	10,031	74.7
4th Quarter	24,636	63.4	29,679	76.5	30,803	81.0	35,571	88.9	30,221	75.8
Second 6 Months	54,534	70.2	51,260	66.8	64,462	83.6	69,976	88.3	60,983	76.4
YEAR †	120,828	78.3	111,835	72.8	136,341	87.8	137,031	86.8	125,333	78.4

* Raw steel production capability varies in each calendar quarter and aggregated 160.0, 157.9, 155.3, 153.7 and 154.3 million net tons for the full years 1977, 1978, 1979, 1980 and 1981 respectively.

† Revised totals include adjustments not shown in monthly figures.

PIG IRON AND FERROALLOYS

TABLE 30—BLAST FURNACE PRODUCTION

Including Direct Castings and Ferroalloys
(Thousands of net tons)

Year	Basic	Bessemer	Low Phosphorus	Foundry	Malleable	All Other	Total Blast Furnace Production
1981	71,166	56	132	1,221	929	66	73,570
1980	66,964	39	72	713	799	134	68,721
1979	84,047	12	44	1,591	1,003	306	87,003
1978	84,497	295	110	1,856	471	450	87,679
1977	78,198	254	122	1,610	690	454	81,328
1976	82,894	1,150	112	1,489	800	425	86,870
1975	75,911	1,087	140	1,321	814	650	79,923
1974	91,193	1,100	106	1,528	1,382	600	95,909
1973	96,202	1,242	101	1,581	1,352	730	101,208
1972	83,961	1,336	105	1,977	1,193	828	89,400

TABLE 31—PIG IRON CONSUMPTION AND SALES

(Thousands of net tons)

Year	Steelmaking	Other Than Steelmaking *	Total
1981	70,858	3,055	73,913
1980	66,111	2,794	68,905
1979	83,307	3,984	87,291
1978	83,571	4,148	87,719
1977	77,141	3,711	80,852
1976	82,039	4,322	86,361
1975	72,837	4,115	76,952
1974	90,500	5,085	95,585
1973	96,138	4,727	100,865
1972	85,268	4,198	89,466

* Includes sales for use outside the steel industry.

TABLE 32—PIG IRON SHIPMENTS OTHER THAN FOR OWN USE

(Thousands of net tons)

Year	Basic	Bess. & Low Phos.	Foundry	Malleable and Silvery	Total	Incl. in Total	
						Hot Metal	Cold Metal
1981	337	119	109	663	1,228	853	375
1980	301	183	125	597	1,206	648	558
1979	538	279	227	811	1,855	1,152	703
1978	677	413	210	799	2,099	1,287	812
1977	663	533	173	737	2,106	1,144	962
1976	530	439	356	836	2,161	1,160	1,001
1975	488	379	291	752	1,910	981	929
1974	743	487	430	1,223	2,883	1,413	1,470
1973	736	598	580	1,398	3,312	1,338	1,974
1972	700	563	571	1,075	2,909	1,195	1,714

TABLE 33—PRODUCTION OF FERROALLOYS

(Thousands of net tons)

	1981 P	1980 R	1979 R	1978	1977
Ferromanganese	170	189	317	273	334
Silicomanganese	183	188	165	141	120
Ferrosilicon *	747	686	857	820	894
Ferrochrome	175	184	247	176	201
Other Chrome **	31	54	47	43	69
Other Ferroalloys ***	220	246	242	213	186
Total	1,526	1,547	1,875	1,666	1,754

TABLE 34—FERROALLOY IMPORTS FOR CONSUMPTION

(Thousands of net tons)

	1981 P	1980 R	1979	1978	1977
Ferromanganese	665	609	821	675	534
Silicomanganese	135	75	95	95	88
Ferrosilicon *	184	92	141	171	141
Ferrochrome	429	297	242	327	224
Other Chrome **	16	9	4	4	20
Other Ferroalloys ***	61	67	78	81	92
Total	1,490	1,149	1,381	1,353	1,099

* Ferrosilicon includes Silicon Metal.
** Other Chrome includes Ferrochrome—silicon and chromium metal.
*** Other Ferroalloys includes Ferrophosphorus, Manganese Metal and all other ferroalloys not listed.
Source: Compiled by The Ferroalloys Association from Bureau of Mines and Department of Census reports.

TABLE 35—MATERIALS USED BY BLAST FURNACES IN MANUFACTURE OF IRON (PIG AND MOLTEN) IN 1981

Products	Thousands of net tons	Net tons per ton of iron produced
Ore:		
Iron ore (incl. manganiferous and block)	6,091	0.083
Manganese ore (incl. ferruginous manganese)	230	.003
Agglomerated products (sinter, pellets, etc.)	108,309 *	1.472
Total ores and agglomerated products consumed	114,630	1.558
Less flue dust and sludge produced	1,905	0.026
Net—Ores & agglomerated products consumed	112,725	1.532
Scrap:		
Total scrap consumed	4,285	0.058
Less produced at blast furnaces & auxiliary units	832	0.011
Net—Scrap consumed	3,453	0.047
Mill cinder, roll scale, etc.	3,252	0.044
Limestone, dolomite, other flux materials †	12,319	0.167
Coke:		
Total coke consumed in blast furnaces	41,671	0.566
Less coke breeze (dust) recovered	1,220	0.016
Net—Coke consumed	40,451	0.550

* Includes production at or near mine site and at other locations.
† Based on total limestone and dolomite charged directly into blast furnaces, plus tonnage consumed in the production of agglomerates.

BASIC MATERIALS USED IN THE PRODUCTION OF IRON AND STEEL PRODUCTS

TABLE 36—COAL CONSUMPTION BY USES—IRON AND STEEL INDUSTRY

(Thousands of net tons)

Year	In Production of		Other Purposes	Total
	Coke	Steam *		
1981	53,565	2,675	293	56,533
1980	58,446	2,602	409	61,457
1979	69,437	2,006	245	71,688
1978	64,562	2,633	285	67,480
1977	69,806	3,048	281	73,135
1976	77,027	2,748	296	80,071
1975	75,515	2,737	364	78,616
1974	81,567	3,426	534	85,527
1973	85,586	4,199	579	90,364
1972	77,081	3,964	400	81,445

* Includes coal consumed in generating electric power.

TABLE 37—CONSUMPTION OF FLUXES

(Thousands of net tons)

Use	Fluorspar	Limestone	Lime	Other Fluxes	Total
1981					
In agglomerated products	...	6,368	...	...	6,368
In blast furnaces	...	5,961	...	...	5,961
In steelmaking furnaces:					
Open hearth	43	488	142	143	816
Basic oxygen process	305	322	6,052	423	7,102
Electric	80	237	1,146	171	1,634
TOTAL	428	13,366	7,340	737	21,871
1980	414	13,545	6,446	780	21,185
1979	562	18,522	8,190	1,165	28,439
1978	570	18,552	8,300	1,169	28,591
1977	506	18,766	7,293	1,135	27,700
1976	587	20,008	7,649	1,290	29,534

TABLE 38—PRODUCTION, RECEIPTS, CONSUMPTION AND SHIPMENTS OF COKE BY THE IRON AND STEEL INDUSTRY

(Thousands of net tons)

	1981	1980	1979	1978	1977
Production:					
Metallurgical	37,627	41,845	48,221	44,643	47,788
Other coke	490	283	288	412	320
Total Production	38,117	42,128	48,509	45,055	48,108
Receipts, incl. imports	5,614	4,103	7,972	6,520	4,956
TOTAL PRODUCTION AND RECEIPTS	43,731	46,231	56,481	51,575	53,064
Consumption:					
Blast furnaces	40,451	39,146	50,008	51,286	48,510
Foundries	...	49	119	114	84
Other	95	81	112	577	414
Total Consumption	40,546	39,276	50,239	51,977	49,008
Shipments to outside companies	2,833	4,232	3,487	3,430	3,563
TOTAL CONSUMPTION AND SHIPMENTS	43,379	43,508	53,726	55,407	52,571

TABLE 39—IRON ORE RECEIPTS AND CONSUMPTION
1981

(Thousands of net tons)

	Original Source of Iron Ore							
	United States				Canada			
	Great Lakes (a)	North-eastern (b)	Southern (c)	Western (d)	Great Lakes (e)	Eastern (f)	All Other Foreign Countries	Total Iron Ore
Receipts at plants	68,049	...	1,782	5,978	488	21,479	10,467	108,243
Consumption in:								
Blast furnaces	63,894	...	1,826	4,585	537	13,084	4,145	88,071*
Steel producing furnaces	46	...	...	27	...	21	284	378
Agglomerating plants (g)	3,574	...	...	1,506	183	7,107	5,436	17,806
Total Consumption	67,514	...	1,826	6,118	720	20,212	9,865	106,255

(a) Michigan, Minnesota, Wisconsin.
(b) New England states, Delaware, New Jersey, New York, Pennsylvania.
(c) Florida, Alabama, Georgia, Missouri, New Mexico, Tennessee, Texas, Virginia.
(d) California, Nevada, Utah, Wyoming, Colorado, Montana, Washington.
(e) Ontario.
(f) Quebec, Newfoundland, Nova Scotia, Labrador, New Brunswick, Prince Edward Island.
(g) Represents plants at other than mine locations.
* Includes 81,980,000 N.T. of agglomerates produced at or near mine site.

TABLE 40—AGGLOMERATED PRODUCTS

(Thousands of net tons)

	1981	1980	1979	1978	1977
Materials Used:					
Ore fines and concentrates	112,006	88,056	113,048	104,501	75,756
Flue dust and sludge	1,699	2,065	2,509	2,422	2,520
Scale	3,683	3,464	4,235	4,057	3,697
Coke breeze	1,434	1,416	1,892	2,014	1,992
Coal	341	171	130	137	126
Cinder and slag	2,825	2,206	2,789	2,907	1,789
Limestone and dolomite	6,368	6,109	8,210	7,530	7,773
Other	1,500	1,417	2,303	2,747	2,711
TOTAL MATERIALS USED	129,856	104,904	135,116	126,315	96,364
Produced From Above Materials:					
Pellets	68,381	61,305	79,996	71,645	47,230
Sinter, briquettes, nodules and other	28,956	27,886	35,969	36,140	34,987
TOTAL PRODUCTION	97,337	89,191	115,965	107,785	82,217
Receipts of Foreign Production:					
TOTAL	15,215	12,743	19,283	18,259	18,995
Consumed In:					
Blast Furnaces—					
Pellets	80,864	72,379	90,684	86,629	76,597
Sinter, briquettes, nodules and other	27,445	27,899	35,898	35,572	35,123
TOTAL	108,309	100,278	126,582	122,201	111,720
Steelmaking Furnaces—					
Pellets	157	183	213	261	227
Sinter, briquettes, nodules and other	4	2	16	54	4
TOTAL	161	185	229	315	231
TOTAL CONSUMPTION	108,470	100,463	126,811	122,516	111,951

TABLE 41—SCRAP—STOCKS, PRODUCTION, RECEIPTS, AND CONSUMPTION BY STEEL INDUSTRY

(Thousands of net tons)

Year	Stocks On Hand Beginning of Year	Produced	Received *	Consumed	Shipped, Transferred or Otherwise Disposed	Stocks On Hand End of Year
1981 P	7,179	38,954	36,724	70,465	5,119	7,273
1980 R	7,402	36,885	34,676	66,557	5,463	6,943
1979	7,132	45,376	37,955	77,190	5,846	7,427
1978	8,010	44,920	35,651	76,294	5,357	6,930
1977	8,259	42,412	31,765	69,301	5,451	7,684
1976	7,401	43,464	31,860	68,427	5,709	8,589
1975	6,880	40,060	27,919	62,836	4,442	7,581
1974	6,002	47,421	40,180	81,074	5,589	6,940
1973	7,112	50,406	36,655	82,467	5,733	5,973
1972	7,508	44,431	33,702	73,415	5,160	7,066

Source: Bureau of Mines.
* Includes scrap received from other plants within the same company.

TABLE 42—SCRAP CONSUMPTION BY GRADE

(Thousands of net tons)

	1980 R	1981 P
Carbon steel:		
Low phosphorous plate and punchings	485	436
Cut structurals and plate	1,199	1,356
No. 1 heavy melting steel	22,535	23,954
No. 2 heavy melting steel	3,560	3,687
No. 1 and electric furnace bundles	7,968	8,626
No. 2 and all other bundles	2,261	2,089
Turnings and borings	1,539	1,695
Slag scrap (Fe content)	4,227	4,455
Shredded or fragmentized	3,188	3,682
No. 1 busheling	1,097	1,344
All other carbon steel scrap	10,860	11,521
Total Carbon Steel	58,919	63,845
Stainless steel	930	946
Alloy steel (excl. stainless)	1,705	1,785
Iron scrap	3,289	3,152
Other grades or types of scrap	1,714	1,737
TOTAL SCRAP	66,557	70,465

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TABLE 43—INDUSTRY CONSUMPTION OF SCRAP AND PIG IRON BY TYPES OF FURNACES

(Thousands of net tons)

Year	Type of Furnace	Consumed		
		Scrap	Pig Iron	Total
1981 [P]	Open hearth	7,453	8,801	16,254
	Basic oxygen process	23,160	62,185	85,345
	Electric	34,418	353	34,771
	Cupola	202	207	409
	Direct castings	...	1,265	1,265
	Blast	4,167	...	4,167
	Other (Incl. air furnace)	1,065	209	1,274
	TOTAL	70,465	73,020	143,485
1980 [R]	Open hearth	7,398	8,600	15,998
	Basic oxygen process	21,859	56,414	78,273
	Electric	32,673	529	33,202
	Cupola	114	117	231
	Direct castings	...	1,188	1,188
	Blast *	3,651	...	3,651
	Other (Incl. air furnace)	862	266	1,128
	TOTAL	66,557	67,114	133,671
1979	Open hearth	10,406	12,860	23,266
	Basic oxygen process	26,496	68,526	95,022
	Electric	34,813	559	35,372
	Cupola	281	201	482
	Direct castings	...	2,239	2,239
	Blast	4,117	...	4,117
	Other (Incl. air furnace)	1,077	357	1,434
	TOTAL	77,190	84,742	161,932
1978	Open hearth	11,675	13,437	25,112
	Basic oxygen process	26,006	69,028	95,034
	Electric	32,694	1,112	33,806
	Cupola	394	189	583
	Direct castings	...	1,581	1,581
	Blast	4,185	...	4,185
	Other (Incl. air furnace)	1,340	354	1,694
	TOTAL	76,294	85,701	161,995
1977	Open hearth	11,009	12,525	23,534
	Basic oxygen process	25,034	63,877	88,911
	Electric	28,188	685	28,873
	Cupola	361	262	623
	Direct castings	...	1,727	1,727
	Blast	3,771	...	3,771
	Other (Incl. air furnace)	938	314	1,252
	TOTAL	69,301	79,390	148,691

Source: Bureau of Mines.
* Includes slag scrap.

TABLE 44—CONSUMPTION OF FUELS

Year	Purpose: Blast Furnace Area: Blast Furnaces	Purpose: Blast Furnace Area: Other Uses	Purpose: Steel Melting Furnaces	Purpose: Heating and Annealing Furnaces	Purpose: Other	Total
			FUEL OIL			
			(Thousands of gallons)			
1981	277,997	4,046*	114,536	125,295	126,311	648,184
1980	298,647	10,768*	101,923	151,777	137,230	700,345
1979	572,945	32,151*	211,603	383,839	228,599	1,429,137
1978	533,101	99,616*	289,518	648,173	333,463	1,903,871
1977	393,625	89,869*	256,330	590,718	368,634‡	1,699,176
			TAR AND PITCH			
			(Thousands of gallons)			
1981	27,755	...	14,196	12,687	4,546	59,182
1980	41,328	...	49,835	...	1,759	92,922
1979	60,208	...	77,221	...	1,251	138,680
1978	79,529	†	56,218	...	10,586	146,333
1977	88,448	†	71,036	†	21,572	181,056
			LIQUID PETROLEUM GAS			
			(Thousands of gallons)			
1981	†	†	†	2,606	3,720	6,326
1980	...	†	†	2,506	3,388	5,894
1979	†	†	†	6,545	7,381	13,926
1978	†	†	†	15,725	9,639	25,364
1977	†	†	†	27,755	11,206	38,961
			NATURAL GAS			
			(Millions of cubic feet—based on 1,000 B.T.U. per cubic foot)			
1981	26,398	43,689*	34,936	339,527	168,665	613,215
1980	20,962	30,697*	32,481	317,432	158,740	560,312
1979	23,930	35,018*	38,720	368,538	177,486	643,692
1978	23,254	29,675*	56,701	327,302	156,252	593,184
1977	21,305	27,108*	36,953	341,598	140,820	567,784
			COKE OVEN GAS			
			(Millions of cubic feet—based on 500 B.T.U. per cubic foot)			
1981	10,990	247,417*	4,725	195,210	163,094	621,436
1980	14,302	268,114*	5,885	208,499	174,599	671,399
1979	15,980	292,238*	5,004	254,963	197,426	765,611
1978	6,469	264,833*	4,592	250,295	189,476	715,665
1977	7,666	306,206*	4,404	257,985	199,564	775,825
			BLAST FURNACE GAS			
			(Millions of cubic feet—based on 95 B.T.U. per cubic foot)			
1981	1,288,051	886,145*	10,200	66,265	1,135,731	3,356,392
1980	1,141,893	727,414	10,061	62,506	1,224,859	3,166,723
1979	1,516,885	882,764	†	193,518	1,670,939	4,264,106
1978	1,531,049	1,044,258	†	198,411	1,654,582	4,428,300
1977	1,498,058	1,093,217	...	188,430	1,395,172	4,174,877

* Includes coke oven underfiring.
‡ Includes heating ovens for wire rods.

† Included with "Other".

† Included with "Other".

* Includes coke oven underfiring.

* Includes 251,408 coke oven underfiring in 1977, 229,265 in 1978, 247,958 in 1979, 214,946 in 1980, and 200,911 in 1981.

* Includes coke oven underfiring.
† Included with "Other".

TABLE 45—CONSUMPTION OF ELECTRIC POWER BY THE IRON AND STEEL INDUSTRY

(Millions of kilowatt hours)

Year	Generated	Purchased	Total
1981	8,511	48,997	57,508
1980	8,744	43,585	52,329
1979	9,283	50,693	59,976
1978	9,349	48,224	57,573
1977	9,570	44,454	54,024

TABLE 46—CONSUMPTION OF OXYGEN BY THE IRON AND STEEL INDUSTRY

(Millions of cubic feet in gaseous form)

	1981	1980	1979	1978	1977
Purchased	204,081	192,264	244,926	246,288	222,883
Produced (a)	23,615	22,182	26,109	28,673	28,323
TOTAL	227,696	214,446	271,035	274,961	251,206
Used in:					
Conditioning	14,143	13,161	17,235	17,548	17,615
Scrap preparation	1,298	1,635	2,090	2,016	1,715
Other burning and welding	5,439	4,273	5,249	7,384	4,364
Blast furnaces	24,278	23,007	35,058	35,641	28,897
Steelmaking:					
Open hearth	21,701	20,626	28,894	34,432	32,228
Basic oxygen process	139,549	130,906	160,602	158,985	150,357
Electric	13,001	11,485	12,915	10,310	7,665
Total Steelmaking	174,251	163,017	202,411	203,727	190,250
Maintenance and construction	1,074	866	1,510	1,218	1,054
All other	7,213	8,487	7,482	7,427	7,311
TOTAL	227,696	214,446	271,035	274,961	251,206

(a) Produced on companies own facilities or leased facilities.
NOTE: Oxygen consumed in liquid form was converted to its gaseous equivalent in these statistics.

TABLE 47—IMPORTS OF IRON ORE BY COUNTRIES

(Thousand gross tons)
Source: Bureau of Mines

Country	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
Australia	*	*	183	264	305	617	803	638	464	687
Brazil	1,738	1,995	3,095	3,979	2,243	5,388	7,526	6,572	3,183	1,115
Canada	18,845	17,311	22,602	19,236	25,283	24,962	19,111	19,702	21,628	18,168
Chile	342	322	245	390	566	608	931	296	205	308
Liberia	2,160	1,590	2,190	2,170	1,791	2,153	2,496	2,730	2,734	2,761
Peru	78	193	456	818	1,021	716	1,551	1,810	1,501	1,318
Sweden	87	33	171	256	154	441	182	335	274	273
Venezuela	5,071	3,602	4,564	6,083	6,179	9,001	13,137	15,378	13,148	10,926
Other	8	12	270	420	363	504	1,005	568	159	205
Total	28,329	25,058	33,776	33,616	37,905	44,390	46,742	48,029	43,296	35,761

* Less than 500 tons.

TABLE 48—IMPORTS FOR CONSUMPTION OF MANGANESE ORE BY COUNTRIES (35 PERCENT OR MORE MN)*

(Mn content—Net tons)

(*Source:* Bureau of Mines, Department of Interior)

Countries	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
Australia	47,842	106,043	55,316	32,598	13,834	117,367	86,542	98,142	61,458	40,261
Brazil	38,909	33,648	51,660	52,095	111,639	161,108	307,367	221,999	299,403	192,825
Gabon	90,629	79,858	48,119	126,962	245,221	269,698	244,795	150,116	193,720	236,819
Ghana	...	...	...	...	...	...	...	4,531	18,600	22,062
Mexico	25,813	22,384	2,060	18,355	34,882	18,485	23,172	16,431	40,666	33,643
Morocco	11	2,843	10,719	14,522	17,070	18,687	...	27,505	13,922	13,935
Republic of South Africa	97,536	86,373	41,475	NA	16,882	60,963	92,210	32,909	55,921	68,849
Zaire	...	...	...	13,231	14,700	2,937	11,444	25,291	35,656	138,878
Other Countries	...	...	22,460	9,472	...	...	...	...	354	46,326
TOTAL	300,740	331,149	231,809	267,235	454,228	649,245	765,530	576,924	719,700	793,598

* Comprises ore received during the year for immediate consumption plus material withdrawn from bonded warehouses; excludes imports for manufacture in bond and export.

TABLE 49—IRON ORE SHIPMENTS THROUGH GREAT LAKES

(Thousands of gross tons)

Source: American Iron Ore Association

Shipments	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
By Ports:										
Superior	10,669	10,146	13,674	12,515	7,742	6,145	6,609	10,004	11,951	10,172
Duluth	13,071	13,263	15,039	13,568	10,687	14,050	14,385	17,832	17,941	14,866
Two Harbors	9,996	10,010	11,124	9,477	3,201	7,506	8,557	9,014	7,803	6,129
Marquette	5,342	5,721	5,332	6,003	3,990	5,436	4,588	2,867	3,392	3,062
Escanaba	8,743	9,724	11,816	11,434	7,890	10,061	9,383	8,220	8,747	9,357
Silver Bay	6,351	4,399	8,267	9,610	4,449	9,694	8,971	10,399	10,878	9,481
Taconite Harbor	7,643	6,097	9,467	8,752	3,501	10,254	10,114	10,456	13,104	10,583
Michipicoten (Canada)	...	...	...	...	...	74	30	81	165	142
Depot Harbor (Canada)	...	...	227	675	573	622	662	686	725	683
Little Current (Canada)	...	...	...	306	608	375	496	582	512	522
Picton (Canada)	...	...	...	43	598	451	272	392	464	460
Thunder Bay (Canada)	1,212	2,679	3,801	4,395	4,695	4,127	3,976	4,889	5,152	4,691
Point Noire (Canada)	4,887	4,319	5,149	3,608	5,108	5,053	2,989	3,915	3,935	...
Port Cartier (Canada)	2,084	1,716	2,685	2,592	3,842	4,834	2,968	1,921	2,481	...
Seven Islands (Canada)	4,891	4,555	5,473	5,918	10,166	7,965	6,267	6,320	7,295	...
TOTAL	74,889	72,629	92,054	88,896	67,050	86,647	80,267	87,578	94,545	70,148

CANADIAN STATISTICS

TABLE 50—PRODUCTION OF PIG IRON AND FERROALLOYS

(Net tons)

Year	Pig Iron			Ferro-alloys	Total
	Basic	All Other	Total		
1981	9,929,454	810,804	10,740,258	310,685	11,050,943
1980	11,040,417	966,650	12,007,067	318,901	12,325,968
1979	11,464,845	556,588	12,021,433	192,462	12,213,895
1978	10,486,271	909,717	11,395,988	265,042	11,661,030
1977	10,030,103	619,244	10,649,347	213,140	10,862,487
1976	10,104,675	698,554	10,803,229	247,997	11,051,226
1975	9,466,064	620,079	10,086,143	176,359	10,262,502
1974	9,564,449	821,857	10,386,306	273,306	10,659,612
1973	9,627,429	883,565	10,510,994	223,367	10,734,361
1972	8,510,470	853,423	9,363,893	250,694	9,614,587

Source: Statistics Canada.

TABLE 51—MATERIALS CONSUMED BY BLAST FURNACES IN THE PRODUCTION OF PIG IRON

Year	Net Tons			Consumption per Ton of Pig Iron		
	Ore, Cinder, etc.	Limestone	Coke	Ore, Cinder, etc.	Limestone	Coke
1981	15,817,001	259,426	4,552,753	1.473	0.024	0.424
1980	17,372,626	345,971	5,343,851	1.447	0.029	0.445
1979	18,601,580	469,846	5,458,170	1.547	0.039	0.454
1978	17,215,864	430,699	4,925,123	1.511	0.038	0.432
1977	15,490,321	361,054	4,798,210	1.455	0.034	0.451
1976	15,098,856	818,426	5,131,274	1.398	0.076	0.475
1975	14,161,402	963,125	4,951,237	1.404	0.095	0.491
1974	14,644,037	897,380	5,027,821	1.410	0.086	0.484
1973	15,288,419	950,600	5,109,092	1.455	0.090	0.486
1972	13,350,050	922,373	4,554,183	1.426	0.099	0.486

Source: Statistics Canada.

TABLE 52—RAW STEEL PRODUCTION

(Net tons)

Year	Open Hearth	Basic Oxygen Process	Electric	Total	Steel for Castings * Incl. in Total	Alloy Steel Incl. in Total
1981	2,203,771	9,567,252	4,363,641	16,134,664	191,747	1,829,082
1980	3,583,430	9,669,217	4,275,473	17,528,120	239,495	2,231,062
1979	3,632,219	10,048,152	4,042,636	17,723,007	246,203	2,458,253
1978	3,338,969	9,274,452	3,809,307	16,422,728	187,936	2,039,373
1977	3,174,390	8,766,492	3,084,991	15,025,873	164,353	1,864,649
1976	3,275,098	8,758,757	2,615,367	14,649,222	183,563	1,754,172
1975	3,394,143	8,052,297	2,911,028	14,357,468	239,312	1,437,835
1974	3,775,659	8,106,525	3,135,094	15,017,278	221,838	1,685,879
1973	4,608,197	7,433,896	2,713,286	14,755,379	206,159	1,597,596
1972	5,164,585	5,601,287	2,307,001	13,072,873	181,067	1,243,621

* Includes only that portion of the steel for castings which was produced in foundries operated by companies producing steel ingots.
Source: Statistics Canada.

TABLE 53—NET SHIPMENTS OF ROLLED STEEL PRODUCTS

(Net tons)

Products	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
Ingots and semifinished shapes	1,098,708	897,005	551,343	671,919	640,276	490,926	399,575	500,995	388,853	323,935
Rails and heavy structural shapes *	925,608	862,691	380,919	290,724	350,446	388,751	371,546	316,981	301,986	170,176
Wire Rods	1,088,166	1,363,294	1,257,889	1,100,126	863,872	804,085	630,822	858,111	801,185	690,256
Structural shapes intermediate **	391,404	458,798	919,602	891,647	668,854	563,104	600,274	654,242	636,369	636,597
Bar sized shapes	182,561	177,693	230,484	215,002	156,311	119,354	126,212	150,182	164,204	151,696
Concrete reinforcing bars	750,665	843,294	584,086	633,338	545,742	534,280	611,461	772,052	757,391	707,126
Other hot rolled bars	1,126,657	1,105,299	1,343,722	1,260,283	1,098,700	1,011,897	950,446	1,073,099	1,048,969	894,165
Tie plates and track material	74,934	87,256	79,021	70,312	75,072	80,420	87,221	77,818	55,673	67,664
Plates (Incl. plates for pipe & tube)	1,987,162	1,954,672	1,874,681	1,636,158	1,253,259	1,163,917	1,605,522	1,412,697	1,345,722	1,285,260
Hot rolled sheets	2,506,978	2,557,134	2,818,510	2,728,914	2,691,196	2,700,730	2,458,985	2,504,116	1,925,619	1,743,331
Hot rolled strip									543,760	444,018
Cold finished bars	104,763	108,224	130,704	108,942	93,973	84,046	88,044	102,812	98,415	82,334
Cold reduced sheets and strip, cold rolled other	1,941,128	2,037,874	2,134,726	2,107,878	1,955,483	1,945,350	1,678,624	2,044,330	1,956,939	1,845,192
Galvanized sheets	1,047,999	1,099,256	1,175,237	1,173,534	983,273	911,542	844,265	971,791	910,623	788,116
Total net shipments	13,226,733	13,552,490	13,480,924	12,888,777	11,376,457	10,798,402	10,452,097	11,439,226	10,935,708	9,829,866

Source: Statistics Canada.

* Prior to 1980, included only rails.

** Prior to 1980, included structural shapes and piling.

TABLE 54—IMPORTS OF IRON AND STEEL PRODUCTS

(Net tons)

Products	1981	1980	1979	1978	1977
Steel Mill Products:					
Ingots, blooms, billets, etc.	188,521	115,347	198,681	59,431	67,601
Wire rods	215,727	117,388	183,251	209,824	193,814
Structural shapes (plain 3" and over)	343,732	197,630	263,138	120,158	188,981
Sheet piling	18,437	13,784	17,582	24,640	19,489
Plates	709,810	252,833	463,675	296,247	233,923
Rails and track accessories	46,037	32,723	22,744	30,459	28,930
Concrete reinforcing bars	16,255	8,970	24,845	26,554	28,833
Bar shapes under 3"	30,929	10,336	17,173	16,864	28,675
Bars—Hot rolled—Carbon	76,505	37,510	67,329	51,673	53,025
—Alloy	47,437	27,249	33,337	41,911	35,381
—Cold finished	15,494	13,644	18,716	17,841	17,180
Pipe and tubing	400,335	355,049	311,898	344,495	224,403
Wire drawn	49,032	38,830	67,129	63,444	70,812
Barbed wire	2,396	1,272	5,087	1,509	1,687
Wire nails	20,535	13,294	19,147	17,472	16,950
Tin plate	4,042	2,132	1,647	1,579	1,898
Terne plate	15,932	13,052	20,674	16,869	18,622
Sheets—Hot rolled	665,865	152,343	289,771	166,321	110,224
—Cold rolled	211,269	75,695	151,936	114,820	97,198
Sheet & strip (Coated, incl. galvanized)	163,338	65,840	147,889	105,871	88,816
All other sheet and strip	78,381	51,173	40,202	38,543	31,686
Total Steel Mill Products	3,320,009	1,596,094	2,365,851	1,766,535	1,558,128
Other Steel Products:					
Steel castings and forgings	15,273	19,189	17,900	15,801	14,168
Bars and rods, fabricated	5,036	4,196	3,831	3,538	3,695
Plates, flanged and dished	5,004	5,073	4,308	4,475	3,833
Plates, sheets and strip for saws	6,405	9,290	9,684	8,275	6,163
Plates, fabricated	12,707	7,761	8,497	4,710	6,894
Sheet and strip, fabricated	14,581	5,977	8,018	4,632	6,562
Structural shapes, fabricated	7,449	6,502	6,265	5,075	11,752
Wire strand	6,660	1,952	3,284	2,914	10,513
Wire rope	13,976	15,857	15,043	11,963	15,151
Grinding balls	17,709	8,851	10,168	12,012	17,773
Total Other Steel Products	104,800	84,648	86,998	73,395	96,504
Total Steel Products	3,424,809	1,680,742	2,452,849	1,839,930	1,654,632
Iron Products and Ferroalloys:					
Pig iron	7,677	2,287	10,927	2,817	13,132
Sponge iron	4,978	4,270	5,762	4,437	4,375
Castings and forgings	17,950	19,544	33,348	19,968	29,788
Pipe and tubes, cast iron	1,567	1,025	1,570	750	888
Ferroalloys	115,982	107,587	160,553	94,028	97,856
Total Iron Products and Ferroalloys	148,154	134,713	212,160	122,000	146,039
GRAND TOTAL	3,572,963	1,815,455	2,665,009	1,961,930	1,800,671

Source: Statistics Canada.

TABLE 55--EXPORTS OF IRON AND STEEL PRODUCTS

(Net tons)

Products	1981	1980	1979	1978	1977
Steel Mill Products:					
Ingots, blooms, billets, slabs, etc.	986,122	360,088	133,094	308,066	264,311
Wire rods	358,868	597,284	390,222	344,959	215,293
Structural shapes and piling	295,896	330,038	368,132	356,988	228,232
Plates	329,366	374,748	334,580	303,398	249,788
Rail and track accessories	212,402	279,652	256,953	215,522	151,619
Bars—Hot rolled	294,672	320,232	170,622	150,781	92,371
—Cold finished	16,527	9,323	5,073	5,047	4,780
Pipe and tubing	513,282	398,392	449,106	381,745	282,516
Wire, plain and coated	107,831	94,984	85,595	87,418	66,731
Wire nails	70,838	81,725	78,687	76,496	74,156
Sheets and strip	581,122	866,861	503,614	591,133	556,012
Sheets and strip—Galvanized	173,708	182,966	163,892	212,126	169,791
Total Steel Mill Products	3,940,634	3,896,293	2,939,570	3,033,679	2,355,600
Other Steel Products:					
Bars and rods, fabricated	4,069	7,563	7,453	9,934	7,603
Grinding balls	10,383	9,509	18,725	12,818	9,915
Castings and forgings	51,705	50,847	70,022	57,850	55,257
Wire rope and strand	9,959	9,611	7,137	5,684	3,353
Total Other Steel Products	76,116	77,530	103,337	86,286	76,128
Total Steel Products	4,016,750	3,973,823	3,042,907	3,119,965	2,431,728
Iron Products and Ferroalloys:					
Pig iron	514,074	619,886	281,666	600,447	556,973
Sponge iron	135,870	196,550	152,479	63,273	57,223
Iron castings	96,517	85,728	121,050	139,863	167,763
Pipe and tubes, cast iron	41,087	30,129	8,933	13,918	7,448
Ferroalloys	126,507	76,805	65,975	99,150	77,594
Total Iron Products and Ferroalloys	914,055	1,009,089	630,103	916,651	867,001
GRAND TOTAL	4,930,805	4,982,912	3,673,010	4,036,616	3,298,729

Source: Statistics Canada.

TABLE 56—CONSUMPTION OF COAL BY USES

(Thousands of net tons)

Year	In production of Coke	Total
1981	6,933	6,937
1980	7,624	7,627
1979	7,688	7,688
1978	7,528	7,532
1977	7,268	7,269
1976	7,922	7,923
1975	7,698	7,700
1974	7,866	7,869
1973	7,745	7,751
1972	6,397	6,407

TABLE 57—CONSUMPTION OF COKE BY USES

(Thousands of net tons)

Year	In Blast Furnaces *	Total
1981	4,283	4,285
1980	5,123	5,126
1979	4,859	4,863
1978	4,906	4,908
1977	4,838	4,839
1976	5,131	5,133
1975	4,953	4,997
1974	5,020	5,023
1973	5,109	5,115
1972	4,664	4,669

* Blast furnaces producing pig iron and ferroalloys.

TABLE 58—CONSUMPTION OF FUEL OIL BY USES

(Thousands of gallons)

Year	In Melting Furnaces	In Heating and Annealing Furnaces	Other Purposes	Total
1981	148,967	17,692	7,421	174,080
1980	145,451	21,088	17,030	183,569
1979	162,770	25,779	5,647	194,196
1978	191,621	30,317	15,145	237,083
1977	158,013	30,111	8,356	196,480
1976	110,254	33,239	9,443	152,936
1975	98,691	28,132	12,813	139,636
1974	117,927	30,321	14,568	162,816
1973	105,221	32,491	18,189	155,901
1972	117,284	37,955	21,024	176,263

TABLE 59—CONSUMPTION OF FLUXES IN STEELMAKING FURNACES

(Thousands of net tons)

Year	Fluorspar	Limestone	Lime	Other Fluxes	Total
1981	29	89	786	122	1,026
1980	38	112	764	121	1,035
1979	33	130	821	131	1,115
1978	37	107	801	147	1,092
1977	30	90	755	145	1,020

TABLE 60—CONSUMPTION OF OXYGEN BY THE IRON AND STEEL INDUSTRY

(Millions of cubic feet in gaseous form)

	High * and Low Purity				
	1981	1980	1979	1978	1977
Consumption By Uses:					
Conditioning	1,426	2,021	2,341	2,177	1,973
Scrap preparation	257	345	388	379	346
Other burning and welding	159	182	214	258	161
Blast furnaces	5,857	5,077	6,763	4,601	4,422
Steelmaking:					
Open hearth	3,949	6,005	4,329	5,294	5,147
Basic oxygen process & Electric	17,837	18,061	18,801	17,400	16,717
Total steelmaking	21,786	24,066	23,130	22,694	21,864
Maintenance & construction	19	22	20	23	21
All other	2,828	690	1,439	1,370	717
TOTAL	32,332	32,403	34,295	31,502	29,504

* The term high purity oxygen means a gaseous mixture containing 99.5% by volume, plus or minus 0.1% of pure oxygen.

NOTE: Oxygen consumed in liquid form was converted to its gaseous equivalent in these statistics.

TABLE 61—PIG IRON CONSUMPTION

(Thousands of net tons)

Year	Steelmaking	Other Than Steelmaking	Total
1981	9,858	272	10,130
1980	10,917	285	11,202
1979	11,220	227	11,447
1978	10,280	331	10,611
1977	10,013	129	10,142

WORLD STATISTICS

The following tables covering production of foreign countries were compiled from reports issued by the Bureau of Mines of the United States Department of the Interior, Statistisches Bundesamt, Aussenstelle Dusseldorf, Eisen-und Stahlstatistik, and the International Iron and Steel Institute.

TABLE 62—WORLD PRODUCTION OF IRON ORE,

(Thousands of

Countries	1981 P	%	1980 R	%	1979 R	%	1978	%	1977	%
North America										
United States	74,307	...	69,613	...	85,716	9.9	81,583	10.3	55,750	6.7
Canada	48,912	...	48,293	...	58,675	6.7	38,996	4.9	52,774	6.4
Total	123,219	...	117,906	15.8	144,391	16.6	120,579	15.2	108,524	13.1
Latin America										
Argentina			...	...	...	...	689	...	710	...
Brazil			105,494	...	88,759	...	56,607	...	75,314	...
Chile			8,819	...	8,159	...	9,311	...	7,655	...
Colombia			484	...	411	...	418	...	466	...
Mexico			8,020	...	8,854	...	3,386	...	7,348	...
Peru			5,589	...	5,331	...	5,905	...	6,092	...
Venezuela			13,465	...	13,317	...	13,779	...	13,467	...
Total			141,871	19.0	124,831	14.3	90,095	11.4	111,052	13.4
Europe										
Western Europe										
EEC										
Belgium			...	...	...	...	42	...	46	...
France			28,738	...	31,461	...	33,243	...	36,427	...
Denmark			...	...	...	...	12	...	5	...
Italy			213	...	246	...	429	...	567	...
Luxembourg			551	...	620	...	1,513	...	822	...
West Germany			1,914	...	1,633	...	1,583	...	2,824	...
United Kingdom			902	...	4,202	...	4,173	...	3,686	...
Total EEC			32,318	4.3	38,162	4.4	40,995	5.2	44,377	5.4
Other Western Europe										
Austria			3,218	...	3,149	...	2,744	...	3,396	...
Finland			797	...	761	...	920	...	1,030	...
Greece			1,429	...	1,807	...	1,486	...	2,017	...
Norway			8,747	...	4,183	...	3,583	...	3,665	...
Portugal			53	...	54	...	51	...	51	...
Spain			8,725	...	8,345	...	7,972	...	7,774	...
Sweden			26,755	...	26,200	...	21,148	...	25,015	...
Turkey			...	...	1,358	...	2,116	...	1,673	...
• Yugoslavia			4,467	...	4,606	...	4,527	...	4,381	...
Total Other W. Europe			54,191	7.3	50,463	5.8	44,547	5.6	49,002	5.9
Total W. Europe			86,509	11.6	88,625	10.2	85,542	10.8	93,379	11.3
Eastern Europe										
(Communist Bloc)										
Bulgaria			1,854	...	2,070	...	2,411	...	2,234	...
Czechoslovakia			1,898	...	1,983	...	2,018	...	1,963	...
East Germany			59	...	83	...	81	...	65	...
Hungary			425	...	515	...	526	...	517	...
Poland			...	...	394	...	556	...	649	...
Rumania			...	...	2,461	...	2,461	...	2,707	...
U.S.S.R.			239,527	...	242,116	...	236,998	...	235,931	...
Total E. Europe			243,763	32.7	249,622	28.6	245,051	30.8	244,066	29.5
Total Europe			330,272	44.3	338,247	38.8	330,593	41.6	337,445	40.8

... NOT AVAILABLE

• Communist Bloc.

CONCENTRATES AND AGGLOMERATES BY COUNTRIES

gross tons)

Countries	1981 P	%	1980 R	%	1979 R	%	1978	%	1977	%
Africa	NOT AVAILABLE									
Algeria			...	...	2,825	...	2,756	...	2,756	...
Angola			...	...	...	...	4,921	...	4,921	...
Liberia			18,060	...	19,558	...	18,208	...	17,913	...
Mauritania			...	...	7,903	...	9,842	...	9,645	...
Morocco			74	...	53	...	98	...	401	...
Zimbabwe			1,594	...	1,181	...	591	...	541	...
Sierra Leone			...	...	...	...	1,476	...	1,476	...
South Africa, Republic of			...	...	31,062	...	23,213	...	25,818	...
Swaziland			...	...	...	...	1,476	...	1,945	...
Tunisia			383	...	388	...	320	...	338	...
Total			20,111	2.7	62,970	7.2	62,906	7.9	65,754	8.0
Middle East										
Iran			...	...	...	...	591	...	581	...
United Arab Republic (Egypt)			...	...	1,417	...	1,250	...	1,402	...
Total			...	...	1,417	0.2	1,841	0.2	1,993	0.2
Far East										
Hong Kong			...	...	30	...	30	...	30	...
India			40,026	...	38,419	...	32,971	...	41,604	...
Japan			475	...	453	...	596	...	673	...
Malaysia			365	...	344	...	310	...	321	...
Philippines			...	...	2	...	591	...	591	...
South Korea			479	...	449	...	689	...	647	...
Thailand			83	...	128	...	59	...	62	...
Total			41,428	5.6	39,825	4.6	35,246	4.4	43,928	5.3
Far East (Communist Bloc)										
China			...	...	68,895	...	63,974	...	54,132	...
North Korea			...	...	...	...	8,858	...	8,267	...
Total			...	...	68,895	7.9	72,832	9.2	62,399	7.6
Oceania										
Australia			94,026	12.6	90,238	10.4	80,371	10.1	95,926	11.6
TOTAL WORLD			745,614	100.0	870,814	100.0	794,463	100.0	827,021	100.0

Source: United States—Bureau of Mines; other countries—Statistical Quarterly Report for Iron and Steel Industry, Statistisches Bundesamt, Aussenstelle Düsseldorf, Eisen-und Stahlstatistik.
NOTE: 1980 preliminary data for foreign countries was not available at the time this Report went to press.

WORLD
Pig Iron

TABLE 63—WORLD PRODUCTION

(Thousands of

Countries	1981 P	%	1980 R	%	1979	%	1978	%	1977	%
North America										
United States	73,570	13.3	68,721	12.3	87,003	14.9	87,679	15.7	81,328	15.2
Canada	10,740	1.9	12,007	2.1	12,021	2.1	11,396	2.0	10,649	2.0
Total	84,310	15.2	80,728	14.4	99,024	17.0	99,075	17.7	91,977	17.2
Latin America										
Argentina	1,918	...	1,991	...	2,113	...	2,005	...	1,213	...
Brazil	11,773	...	14,329	...	12,797	...	11,368	...	10,788	...
Chile	661	...	710	...	674	...	594	...	476	...
Colombia	292	...	308	...	266	...	327	...	246	...
Mexico	6,019	...	5,806	...	5,530	...	5,661	...	4,772	...
Peru	198	...	288	...	283	...	271	...	269	...
Venezuela	2,420	...	1,868	...	1,468	...	759	...	548	...
Total	23,281	4.2	25,300	4.5	23,131	4.0	20,985	3.8	18,312	3.4
Europe										
Western Europe										
EEC										
Belgium	10,788	...	10,852	...	11,878	...	11,164	...	9,898	...
Luxembourg	3,185	...	3,939	...	4,190	...	4,102	...	3,933	...
France	19,044	...	21,119	...	21,401	...	20,389	...	20,125	...
Italy	15,577	...	13,469	...	12,564	...	12,572	...	12,648	...
Netherlands	5,072	...	4,771	...	5,306	...	5,085	...	4,323	...
West Germany	35,137	...	37,338	...	38,765	...	33,232	...	31,922	...
United Kingdom	10,577	...	6,962	...	14,217	...	12,604	...	13,667	...
Total EEC	97,380	17.6	98,444	17.6	108,321	18.6	99,148	17.7	96,516	18.0
Other Western Europe										
Austria	3,832	...	3,842	...	4,081	...	3,395	...	3,268	...
Finland	2,178	...	2,226	...	2,246	...	2,048	...	1,944	...
** Greece	441	...	441	...	441	...	661	...	...	...
Norway	623	...	681	...	718	...	613	...	604	...
Portugal	334	...	389	...	400	...	389	...	394	...
Spain	6,867	...	7,032	...	7,114	...	6,867	...	7,391	...
Sweden	1,953	...	2,684	...	3,204	...	2,605	...	2,568	...
Switzerland	39	...	39	...	39	...	39	...	30	...
Turkey	2,205	...	2,454	...	1,924	...	1,102	...	1,500	...
* Yugoslavia	3,070	...	2,685	...	2,610	...	2,294	...	2,126	...
Total Other W. Europe	21,542	3.9	22,473	4.0	22,777	3.9	20,013	3.6	19,825	3.7
Total Western Europe	118,922	21.5	120,917	21.6	131,098	22.5	119,161	21.3	116,341	21.7

* Communist Bloc.
** Include in 1981 EEC total.

OF PIG IRON BY COUNTRIES

net tons)

Countries	1981 P	%	1980 R	%	1979	%	1978	%	1977	%
Eastern Europe (Communist Bloc)										
Bulgaria	1,698	...	1,696	...	1,601	...	1,646	...	1,779	...
Czechoslovakia	11,068	...	10,823	...	10,505	...	10,961	...	10,709	...
East Germany	2,778	...	2,709	...	2,601	...	2,822	...	2,900	...
Hungary	2,458	...	2,440	...	2,611	...	2,568	...	2,520	...
Poland	10,858	...	12,687	...	12,240	...	12,384	...	10,637	...
Rumania	10,031	...	9,934	...	9,787	...	8,989	...	8,267	...
U.S.S.R.	118,387	...	118,257	...	120,148	...	122,027	...	118,352	...
Total Eastern Europe	157,278	28.5	158,546	28.3	159,493	27.3	161,397	28.9	155,164	28.9
Total Europe	276,200	50.0	279,463	49.9	290,591	49.8	280,558	50.2	271,505	50.6
Africa										
Zimbabwe	386	...	386	...	331	...	331	...	353	...
South Africa, Republic of	8,014	...	7,948	...	7,750	...	6,534	...	6,717	...
Algeria	551	...	551	...	437	...	441	...	165	...
Tunisia	165	...	168	...	170	...	165	...	165	...
Total	9,116	1.6	9,053	1.6	8,688	1.5	7,471	1.3	7,400	1.4
Middle East										
Iran	220	...	220	...	220	...	276	...	...	...
United Arab Republic (Egypt)	716	...	716	...	661	...	661	...	276	0.1
Total	936	0.2	936	0.2	881	0.1	937	0.2	276	0.1
Far East										
India	10,443	...	9,379	...	9,664	...	10,217	...	10,780	...
Japan	88,236	...	95,945	...	92,400	...	86,629	...	94,672	...
South Korea	8,736	...	6,148	...	5,581	...	3,021	...	2,674	...
Taiwan	1,770	...	1,857	...	358	...	303	...	661	...
Thailand	45	...	42	...	33	...	17	...	13	...
Indonesia	265	...	243	...	204	...	50	...	35	...
Malaysia	243	...	220	...	176	...	132	...	...	...
Philippines	22	...	21	...	14	...	12	...	...	...
Total	109,760	19.9	113,855	20.3	108,430 R	18.6	100,381 R	17.9	108,835	20.3
Far East (Communist Bloc)										
China	37,478	...	39,021	...	40,267	...	38,349	...	26,455	...
North Korea	3,858	...	3,748	...	3,527	...	3,527	...	3,638	...
Total	41,336	7.5	42,769	7.7	43,794	7.5	41,876	7.5	30,093	5.6
Oceania										
Australia	7,529	1.4	7,675	1.4	8,610	1.5	8,088	1.4	7,444	1.4
TOTAL WORLD	552,468	100.0	559,779	100.0	583,149 R	100.0	559,371 R	100.0	535,842	100.0

NOTE: Detail does not necessarily add to totals.
Source: United States—American Iron and Steel Institute; Canada—Statistics Canada. Other countries—Statistical Quarterly Report for Iron and Steel Industry, Statistisches Bundesamt, Aussenstelle Dusseldorf, Eisen-und Stahlstatistik.

TABLE 64—WORLD PRODUCTION OF

(Thousands

Countries	1981 P	%	1980 R	%	1979	%	1978	%	1977	%
North America										
United States	120,828	15.5	111,835	14.2	136,341	16.5	137,031	17.3	125,333	16.9
Canada	16,135	2.0	17,528	2.2	17,723	2.2	16,423	2.1	15,026	2.0
Total	136,963	17.5	129,363	16.4	154,064	18.7	153,454	19.4	140,359	18.9
Latin America										
Argentina	2,801	...	2,962	...	3,526	...	3,067	...	2,959	...
Brazil	14,565	...	16,875	...	15,314	...	13,454	...	12,306	...
Chile	724	...	823	...	708	...	679	...	621	...
Colombia	437	...	443	...	398	...	430	...	359	...
*Cuba	331	...	331	...	331	...	331	...	331	...
Mexico	8,384	...	7,825	...	7,722	...	7,398	...	6,121	...
Peru	397	...	518	...	481	...	416	...	418	...
Venezuela	2,238	...	2,006	...	1,660	...	948	...	885	...
Others	265	...	152	...	123	...	80	...	87	...
Total	30,142	3.9	31,935	4.0	30,263	3.7	26,803	3.4	24,087	3.2
Europe										
Western Europe										
EEC										
Belgium-Luxembourg	17,718	...	18,673	...	20,272	...	19,170	...	17,178	...
Denmark	675	...	809	...	886	...	951	...	755	...
France	23,436	...	25,547	...	25,750	...	25,178	...	24,365	...
West Germany	45,867	...	48,323	...	50,750	...	45,474	...	42,972	...
Ireland	35	...	2	...	79	...	76	...	52	...
Italy	27,312	...	29,212	...	26,731	...	26,767	...	25,722	...
Netherlands	6,023	...	5,803	...	6,400	...	6,154	...	5,426	...
United Kingdom	17,166	...	12,431	...	23,725	...	22,451	...	22,561	...
Total EEC	138,232	17.7	140,800	17.8	154,593	18.7	146,221	18.5	139,031	18.8
Other Western Europe										
Austria	5,132	...	5,096	...	5,420	...	4,779	...	4,777	...
Finland	2,658	...	2,765	...	2,716	...	2,572	...	2,539	...
**Greece	993	...	1,323	...	1,102	...	1,032	...	1,102	...
Norway	935	...	950	...	982	...	879	...	879	...
Portugal	607	...	726	...	739	...	689	...	586	...
Spain	14,241	...	13,936	...	13,501	...	12,499	...	12,312	...
Sweden	4,156	...	4,670	...	5,217	...	4,767	...	4,374	...
Switzerland	992	...	1,024	...	977	...	864	...	723	...
Turkey	2,673	...	2,795	...	2,641	...	2,394	...	2,056	...
*Yugoslavia	4,384	...	4,006	...	3,897	...	3,810	...	3,508	...
Total Other W. Europe	36,771	4.7	37,291	4.7	37,192	4.5	34,285	4.3	32,856	4.4
Total Western Europe	175,003	22.4	178,091	22.5	191,785	23.2	180,506	22.8	171,887	23.2

* Communist Bloc.
** Include in 1981 EEC total.

RAW STEEL BY COUNTRIES

of net tons)

Countries	1981 P	%	1980 R	%	1979	%	1978	%	1977	%
Eastern Europe (Communist Bloc)										
Bulgaria	2,866	...	2,830	...	2,736	...	2,722	...	2,853	
Czechoslovakia	16,755	...	16,452	...	16,333	...	16,859	...	16,594	
East Germany	8,267	...	8,056	...	7,743	...	7,690	...	7,551	
Hungary	3,968	...	4,152	...	4,309	...	4,274	...	4,104	
Poland	17,196	...	21,478	...	21,184	...	21,219	...	19,666	
Rumania	14,881	...	14,523	...	14,230	...	12,984	...	12,629	
U.S.S.R.	164,243	...	163,064	...	164,339	...	166,929	...	161,659	
Total Eastern Europe	228,176	29.2	230,555	29.2	230,874	28.0	232,677	29.5	225,056	30.3
Total Europe	403,179	51.6	408,646	51.7	422,659	51.2	413,183	52.3	396,943	53.5
Africa										
Zimbabwe	762	...	887	...	816	...	772	...	551	
Republic of South Africa	9,858	...	9,996	...	9,784	...	8,710	...	8,053	
Others	970	...	950	...	790	...	970	...	680	
Total	11,590	1.5	11,833	1.5	11,390	1.4	10,452	1.3	9,284	1.2
Middle East										
Egypt	992	...	882	...	882	...	661	...	661	
Israel	126	...	127	...	118	...	104	...	79	
Iran	1,323	...	1,323	...	1,576	...	1,433	...	716	
Other	715	...	624	...	624	...	201	...	56	
Total	3,156	0.4	2,956	0.4	3,200	0.4	2,399	0.3	1,512	0.2
Far East										
India	11,893	...	10,487	...	11,162	...	11,132	...	11,033	
Japan	112,077	...	122,791	...	123,180	...	112,551	...	112,882	
South Korea	11,853	...	9,433	...	8,389	...	5,477	...	4,677	
Taiwan	3,465	...	4,657	...	4,685	...	3,783	...	1,951	
Others	2,049	...	2,024	...	1,895	...	1,817	...	1,179	
Total	141,347	18.1	149,392	18.9	149,311	18.1	134,760	17.1	131,722	17.8
Far East (Communist Bloc)										
China	39,242	...	40,918	...	38,007	...	35,031	...	25,794	
North Korea	6,063	...	6,393	...	5,952	...	5,600	...	3,472	
Total	45,305	5.8	47,311	6.0	43,959	5.3	40,631	5.1	29,266	4.0
Oceania										
Australia	8,416	...	8,365	...	8,950	...	8,373	...	8,084	
New Zealand	244	...	254	...	252	...	248	...	240	
Philippines	386	...	364	...	438	...	304	...	331	
Total	9,046	1.2	8,983	1.1	9,640	1.2	8,925	1.1	8,655	1.2
Total Free World	502,512	65.0	508,216	64.8	545,425	66.7	513,158	65.4	483,667	65.7
Total Communist Bloc	278,196	35.0	282,203	35.2	279,061	33.3	277,449	34.6	258,161	34.3
TOTAL WORLD	780,708	100.0	790,419	100.0	824,486	100.0	790,607	100.0	741,828	100.0

NOTE: United States data excludes steel shipped by foundries which reported their output to the Bureau of Census, but did not report to American Iron and Steel Institute as follows: 1981—1,752 P; 1980—1,878 R; 1979—2,039; 1978—1,857; 1977—1,717; (in thousands of net tons).

Source: United States—American Iron and Steel Institute; Canada—Statistics Canada. Other countries—International Iron and Steel Institute.

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TABLE 2—INCOME, DIVIDENDS, RETURN ON SALES AND STOCKHOLDERS' EQUITY (a)

(Millions of net tons and dollars)

(Covering the consolidated statements including all the affiliated interests of the parent companies rendering these reports)

	1981	1980 R	1979	1978	1977	1976	1975	1974	1973	1972
Reporting Companies Represent:										
Blast furnace production	69.5	64.8	83.3	83.9	77.5	83.5	76.1	91.7	96.9	84.9
Per cent of industry	94.4	94.4	95.8	95.7	95.3	96.1	95.2	95.6	96.0	95.5
Raw steel production	103.1	95.6	119.7	121.7	111.6	116.3	105.1	132.9	138.1	122.1
Per cent of industry	85.3	85.5	87.8	88.8	89.0	90.9	90.1	91.2	91.6	91.6
Shipments of finished steel products	74.8	72.5	88.3	86.3	81.5	81.8	72.9	101.3	104.3	85.7
Statement of Income:										
Revenues:										
Sales (Net billing value of products shipped and other services)	$60,806.2	$52,828.8	$55,140.4	$49,033.0	$39,399.8	$36,092.5	$33,143.8	$37,745.0	$28,494.9	$22,364.9
Interest, dividends and other income	1,224.8	970.4	564.4	445.2	307.7	369.9	532.5	498.6	368.3	190.8
Total Revenue	62,031.0	53,799.2	55,704.8	49,478.2	39,707.5	36,462.4	33,676.3	38,243.6	28,863.2	22,555.7
Costs Applied to Billings and Other Services:										
Employment Costs:										
Wages and salaries	14,822.4	13,715.2	14,396.9	12,976.0	11,218.8	10,222.3	9,232.8	9,579.9	8,312.4	7,177.8
Payroll taxes	1,096.9	961.3	982.8	844.2	697.7	635.9	566.4	585.8	509.3	358.2
Pensions	1,628.1	1,505.4	1,509.0	1,419.3	1,192.5	1,153.1	967.0	791.5	587.2	454.3
Insurance	1,389.1	1,276.3	1,149.3	1,028.9	913.3	873.7	745.4	585.4	537.2	504.3
Savings and vacation type plans	‡	‡	‡	‡	‡	76.7	89.4	74.8	53.8	56.3
Supplemental unemployment benefits	92.8	78.0	41.8	66.6	75.0	61.6	42.6	54.8	58.9	58.9
All other employment costs	569.7	554.2	593.7	433.6	312.7	250.3	239.5	186.3	142.5	114.1
Total Employment Costs	19,599.0	18,090.4	18,673.5	16,768.6	14,410.0	13,273.6	11,883.1	11,858.5	10,201.3	8,723.9
Materials, supplies, freight and other services, etc	35,620.3	30,393.7	31,380.4	27,494.5	22,096.4	19,175.7	17,373.6	19,900.3	14,450.5	10,687.6
Depreciation, depletion and amortization	2,107.1	1,957.8	1,846.9	1,707.1	1,521.7	1,378.4	1,272.8	1,327.2	1,262.6	1,170.7
Interest and charges on debt	876.7	873.2	746.4	752.2	605.4	480.7	382.5	353.7	357.4	345.8
Taxes other than income (b)	663.0	638.7	806.6	688.8	533.5	560.8	515.7	482.6	452.5	494.7
Taxes on income (c)	1,478.5	449.2	383.8	652.5	(433.4)	265.7	653.7	1,846.1	866.7	358.2
(Gain) or loss on discontinued operations and sales of assets (d)	(897.5)	(338.6)	712.7	137.9	951.6	(9.9)	...	...	...	...
Total Costs	59,447.1	52,064.4	54,550.3	48,201.6	39,685.2	35,125.0	32,081.4	35,768.4	27,591.0	21,780.9
Net Income	2,583.9	1,734.9	$ 1,154.5	$ 1,276.6	$ 22.3	$ 1,337.4	$1,594.9	$2,475.2	$ 1,272.2	$ 774.8
Per Cent Return on Sales	4.2	3.3	2.1	2.6	0.06	3.7	4.8	6.6	4.5	3.5
Per Cent Return on Stockholders' Equity †	13.3	9.6	6.5	7.3	0.1	7.8	9.8	17.1	9.3	5.8
Cash Dividends Declared	659.3	629.8	$ 593.4	$ 536.1	$ 555.0	$ 637.1	$ 657.8	$ 674.4	$ 443.1	$ 402.3
Stockholders:										
Number at end of year:										
Preferred	41,349	45,547	55,648	72,572	36,167	33,243	35,176	36,066	36,670	36,922
Common	717,654	755,644	772,014	817,632	779,499	773,635	831,877	899,329	948,452	975,300

(a) Some of the reporting companies, either directly or indirectly through subsidiary companies, are engaged in activities which are not a part of the steel industry and make their reports on a consolidated basis. Hence, "Net Income" as reported by such companies includes the operations of activities not concerned with steelmaking. Although the detail of net income is not available, the following Table 2A compares the contribution of the steel versus other business segments for certain financial items (as reported in the business segment sections of the companies annual reports).

(b) Includes income taxes other than Federal income taxes in years prior to 1973.

(c) Includes only Federal income taxes in years prior to 1973.

(d) Includes only pretax (gains) or losses which were separately disclosed in annual financial statements to stockholders.

† Based on stockholders' equity as of Dec. 31 of the prior year.

‡ Costs included with wages and salaries.

Totals do not necessarily add due to rounding.

TABLE 16—SHIPMENTS OF STEEL PRODUCTS BY MARKET CLASSIFICATION—1981
ALL GRADES

(Net tons)

Products	Steel for Converting and Processing: Total Shipments	Steel for Converting and Processing: Less Shipments to Reporting Companies	Steel for Converting and Processing: Net Shipments	Independent Forgings (Not elsewhere classified)	Industrial Fasteners	Steel Service Centers and Distributors	Construction Including Maintenance	Contractors' Products	Automotive	Rail Transportation	Shipbuilding and Marine Equipment	Aircraft and Aerospace	Oil and Gas Industry	Mining, Quarrying and Lumbering	Agricultural	Machinery, Industrial Equipment and Tools	Electrical Equipment	Appliances, Utensils, and Cutlery	Other Domestic and Commercial Equipment	Containers, Packaging and Shipping Materials	Ordnance and Other Military	Export (Reporting Companies Only)	Non-classified Shipments	Total	%
Ingots, blooms, billets, slabs, and tube rounds	483,009	119,520	363,489	526,606	17,754	135,734	238,020	24	197,878	18,645	17	8,487	99,899	2,039	7,875	173,199	371	6	1	41,935	45,080	383,842	321,510	2,582,461	3.0
Skelp	77,344	59,778	17,566	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	201	...	17,767	...
Wire rods	1,300,964	303,575	997,389	55	161,421	18,416	100,134	19,953	73,475	10	48	39	222	26,724	14,381	451,579	2,717	224	147,677	3,884	16	65,943	913,157	2,997,464	3.4
Structural shapes (3" & over)	951	166	785	223	26	1,105,772	2,313,042	23,419	36,557	125,265	129,945	312	102,965	9,916	23,883	184,943	6,086	102	3,837	537	1,304	66,841	485,126	4,620,884	5.3
Steel piling	83	...	83	...	...	24,840	250,105	...	...	2,211	278	...	478	437	...	...	...	...	...	...	...	3,509	...	281,941	0.3
Plates	102,377	18,325	84,052	8,810	5,987	1,631,832	1,494,185	83,301	129,825	406,172	863,984	4,530	323,678	94,170	125,736	1,330,315	141,859	7,080	23,027	6,840	40,779	151,222	439,679	7,397,063	8.5
Rails	223	223	...	...	...	22,384	92,282	...	...	812,252	980	...	...	5,981	...	1,933	...	...	972	...	...	66,127	10,800	953,711	1.1
Rail Accessories	25	...	25	580	27	7,507	5,878	...	...	266,479	...	...	...	1,926	...	5	...	...	...	...	...	2,259	9,415	294,101	0.3
Wheels (rolled and forged)	...	...	...	...	...	121	2,307	...	...	98,936	81	...	...	1,182	...	5,257	...	...	...	...	...	2,301	...	110,185	0.1
Axles	...	...	...	...	...	...	812	...	...	98,331	...	...	...	170	...	136	...	...	...	...	...	500	...	99,949	0.1
Bars—Hot rolled (including light shapes)	1,054,868	835,460	219,408	495,650	226,823	1,052,650	428,458	35,814	1,363,764	140,696	27,884	10,226	349,110	262,785	173,800	755,059	87,618	11,616	34,771	722	21,293	120,340	1,951,465	7,769,896	8.9
—Reinforcing	64,074	62,797	1,277	...	...	184,201	1,454,073	3,863	...	...	...	...	...	10,943	47	...	2,674	...	...	...	...	172,534	2,541,416	4,471,028	5.0
—Cold finished	5,365	422	4,943	1,306	21,189	416,687	2,074	21,551	143,662	2,707	3,736	3,771	12,853	5,708	37,875	289,664	20,929	13,370	19,728	...	7,571	3,821	584,851	1,619,982	1.9
Tool steel	1,917	499	1,418	315	34	9,726	394	3	...	8	...	74	...	4	...	2,779	...	90	1	...	2	702	51,810	67,360	0.1
Pipe and tubing—Standard	134,544	63,207	71,337	...	20	1,210,160	18,927	92,187	580	1,544	1,213	...	201,771	3,575	3,798	17,880	123,525	580	13,678	...	1,003	35,155	61,585	1,858,518	2.1
—Oil country goods	237,319	200,702	36,617	...	...	319,553	21,914	3,634	...	...	...	...	3,665,414	...	...	21	...	...	...	...	...	76,421	117,533	4,241,107	4.9
—Line	6,519	3,368	3,151	...	...	570,036	126,964	4,613	...	93	3	...	1,140,802	83	757	1,878	40	...	315	3,450	...	6,089	188,577	2,047,511	2.4
—Mechanical	36,489	27,125	9,364	...	...	303,100	9,533	49,185	124,818	934	97	1,623	126,974	3,895	18,149	330,934	3,583	5,645	18,552	5,660	2,111	23,495	310,168	1,347,820	1.5
—Pressure	2,045	1,924	121	...	...	46,241	1,889	5,752	73	54	325	19	7,150	450	...	49,105	2	...	1,193	7,040	57	4,175	30,122	153,764	0.2
—Structural	1,640	635	1,005	...	...	276,107	46,942	3,278	704	493	401	21	184,867	...	8,560	1,071	31,878	...	281	2,405	...	305	39,323	597,701	0.7
—Stainless	2,144	1,714	430	...	...	18,773	491	317	47	...	586	111	1,634	3	...	5,735	79	99	346	68	17	748	9,623	39,107	...
Wire—Drawn	264,714	13,990	250,724	294	108,937	148,140	246,233	83,850	41,698	1,621	65	32	450	2,589	8,010	79,997	17,459	19,683	121,998	25,285	2,577	6,373	152,825	1,318,750	1.5
—Nails and staples	2,189	5	2,184	...	...	100,082	40,291	2	2	47	5	...	...	95	71	3,027	134	...	58	241	17	...	3,955	150,218	0.2
—Other merchant wire products	3,169	181	2,988	...	...	129,405	51,050	200	556	715	...	...	...	230	11,020	9,085	6	...	85	1,079	25	18,778	...	225,222	0.3
Black plate	32,406	5,969	26,437	...	...	80,180	5,416	44,636	9,265	...	...	...	...	...	...	2,768	10,869	16,814	37,425	175,062	...	12,130	...	421,002	0.5
Tin plate	11,440	...	11,440	...	49	268,077	530	981	80,226	...	...	...	...	...	80	5,766	18,911	29,197	22,927	2,794,532	...	257,052	...	3,489,768	4.0
Tin free steel	82	...	82	...	...	33,742	2	364	1,777	...	...	...	...	...	...	584	4,854	1,515	...	888,161	...	17,235	...	948,316	1.1
Tin Mill products—All other	82	...	82	...	...	13,498	36	477	42,819	...	...	...	...	...	...	2,392	391	2,248	3,261	1,248	...	1,537	...	67,989	0.1
Sheets—Hot rolled	3,514,878	1,354,680	2,160,198	334	56,330	3,759,217	667,499	533,782	4,170,229	165,212	65,989	1,339	5,354	49,556	382,136	384,405	267,889	105,613	183,157	2,99,573	25,165	167,415	306	13,450,698	15.5
—Cold rolled	701,897	44,533	657,364	269	4,118	3,601,742	63,285	820,543	4,729,426	5,870	823	2,318	7,428	1,885	74,095	283,316	1,218,478	1,219,485	816,695	809,148	11,692	65,686	24	14,395,700	16.5
Sheets and strip—Galvanized	80,269	16,348	63,921	...	24,337	1,819,453	643,953	1,296,492	1,239,015	1,624	1,374	330	137	1,067	257,784	55,440	109,824	243,473	102,679	36,721	1,404	18,523	5,562	5,923,053	6.8
—All other metallic coated	6,941	263	6,678	...	20	136,209	155,690	64,041	336,207	13	931	...	33	582	6,545	17,437	7,903	29,492	11,774	5,064	38	42,929	14,011	835,697	1.0
—Electrical	12	...	12	...	...	61,461	...	864	12,321	1,539	1,957	...	1,831	333	4	11,026	477,475	...	82	1,831	...	37,939	430	599,105	0.7
Strip—Hot rolled	215,070	198,302	16,768	348	10,858	44,676	20,346	13,322	263,154	7,113	...	2,314	4,407	6,521	54,062	118,116	22,572	7,336	14,590	31,068	640	11,064	10,290	659,565	0.8
—Cold rolled	50,683	4,198	46,485	6	9,943	86,839	2,929	23,942	155,778	3,618	579	1,404	588	68	20,366	47,129	21,844	60,891	41,595	152,497	5,707	27,437	350,063	1,059,728	1.2
TOTAL—ALL GRADES	8,395,732	3,337,909	5,057,823	1,034,796	647,873	17,636,618	8,445,684	3,230,390	13,153,806	2,162,202	1,101,301	36,950	6,238,103	492,917	1,229,134	4,623,981	2,599,966	1,774,641	1,622,364	5,292,280	166,473	1,844,485	8,622,344	87,014,131	100.0
%	...	...	5.8	1.2	0.7	20.3	9.7	3.7	15.1	2.5	1.3	...	7.2	0.6	1.4	5.3	3.0	2.0	1.9	6.1	0.2	2.1	9.9	100.0	...

TABLE 20—EXPORTS OF IRON AND STEEL PRODUCTS BY COUNTRIES OF DESTINATION 1981

(Net Tons)

Product	Latin America														Europe																					Asia										Australia & Oceania			Africa			
																European Economic Community																																				
	Grand Total	Canada	Mexico	Guatemala	El Salvador	Costa Rica	Panama	Dominican Republic	Colombia	Venezuela	Ecuador	Peru	Chile	Brazil	Argentina	Total Latin America	Sweden	United Kingdom	Netherlands	Belgium-Luxembourg	France	West Germany	Italy	Total* EEC	Spain	Turkey	Total Europe	Israel	India	Pakistan	Saudi Arabia	Philippines	Korea Rep.	People's Republic of China	Taiwan Chinese	Japan	Total Asia	Australia	Total Oceania	Egypt	Nigeria	Rep. So. Africa	Total Africa
Steel Mill Products																																																		
Ingots, blooms, billets, slabs (a)	341,296	19,306	190,043	11,636	90	10,393	12,901	5,057	60	13,974	47,312	11,192	253	8,431	2	332,427	45	176	18	2	199	148	139	721			777	867	16	15	118		56	16,360	1,148	646	14,319	390	396	10		10	8
Bars (a)	101,174	13,256	10,439	648	9	4	6	1	816	316	796	264	3	1,020	50	17,856	36	357	20	18	29	199	93	1,008	59	4	1,744	42	443	64	825	1	14	16	1,418	63	84	18,985	1,149	1,149	71	693	13	777
Structural shapes (a & misc)	131,379	19,656	74,998	303	9	42	1,048	264	534	4,067	184	709	165	69	2,261	50,134	3	842	18	2	86	336	642	1,991	1,402	4	3,315	133	208	23	3,836	141	28	15	1,629	92	153	6,140	1,349	1,362	147	91	1,594
Sheet, strip (a)	7,059	1,813	1,062	40					5	1,800						3,005		43	32		48	37	5	165			335	106	43	12	5,009		6		1,026	6	6	6,564	1	1				
Plate	199,534	9,614	44,678	484	56	24	3,571	14	222	2,529	63	1,665	267	946	254	60,097	5	634	28	22	102	216	101	1,201	2,782		4,503	306	493	303	1,377	309	178	86	1,266	618	3,746	14,179	139	139	139	140	140	1,767
Rail	56,008	13,343	16,392							1,419	8	94	333	29	41,470	22												961								961								
Rail accessories	13,307	1,566	8,733	1					41	106	106	5	264	3	123	6,106	18	53	1		8		28	56			115		11						126			126					
Rail joints and splices	3,011	1,500	1,132	1					97	106	106	5	264	3	123	6,106	18	53	1		8		18	74	12		129								129			129					
Axles (a)	3,296	374	2,922							2,548		26				5,267	14	186		240		10		1,004	34		1,284	38	48						1,284			1,284			99		99
Locomotive tires, wheels	132,318	3,743	63,706	1,363		14	1,775	19	307	477	4,178	14,392	17			107,490		23	23					46			46								13,500			13,500					
Bar shapes (a) (c)	16,174	1,973	6,158	22	2	64	66	100	255	586	594	2,082	123	314	71	16,431	19	58	93	1	14	23	30	274			709	176	110	24	372	109	313		231	30	2,959	40	40	3,708	408	408	15	1,140	1,140
Bars, flats, shapes, carbon	31,027	4,876	13,840	1,022	2	31	61	16	158	1,233	1,002	201	20	1,138	35,259	23	12	6	63	80	297	944	58	1,460	253	7	1,695	253	7	10	2,153	15	41	3	1,291	111	496	4,375	1,141	1,141	15	1,140	1,155
Alloy	36,636	11,126	17,180	38	1	31	61	16	158	1,233	1,002	201	20	1,138	35,259	23	12	6	63	80	297	944	58	1,460	253	7	1,695	253	7	10	2,153	15	41	3	1,291	111	496	4,375	1,141	1,141	15	1,140	1,155
Tool steel	5,391	1,750	1,658	16	1	31	61	16	158	1,233	1,002	201	20	1,138	35,259	23	12	6	63	80	297	944	58	1,460	253	7	1,695	253	7	10	2,153	15	41	3	1,291	111	496	4,375	1,141	1,141	15	1,140	1,155
Other carbon steel	3,801	1,806	1,522	16					141	233						980	3	48	2		77	29	18	192	2		241	80	24		641		62		2		2	811			93		93	302
Hollow, drill steel	1,700	1,320	1,140	6						2,048		20				3,274	6	16	4		16	86	6	134			146	38	48		232				318			318			99		99
Pipe—Standard	118,630	16,241	44,014	1,448	48	40	571	197	1,026	4,005	562	873	256	59,086	2,745	2,486		259	335	643	6,469	124	3	6,941	58	199	13	7,206	131	1,623	1	9,527	75	10,814	360	366	230	1,191	11,760	15,159
Line	42,836	7,041	19,113	578					208	778	1,049	3,316				21,292		1,436						1,436			1,436	601	17		1,260				1,878			1,878			4,599		4,599
Oil country goods	17,794	499	16,112	307	15	5	28	2,000	1,000	8,913	1,000	2,000	2,000	2,000	71	36,000	2,000	2,000	1,000	1,000	5,000	1,000	71	12,071	322	86	12,479	83	17	316	416	143	1,000	11	1,670	14	14	12,370	1,231	1,231	1,000	1,000	2,000
Tubing—Drill pipe	7,433	1,000	1,000	30	1	1	5	2	1,000	230	448	1,000	1,000	1,000	71	4,000	1,000	1,000	1,000	1,000	4,000	1,000	71	9,071	322	86	9,479	83	17	316	416	143	1,000	11	1,670	14	14	9,370	1,231	1,231	1,000	1,000	2,000
Mechanical	11,361	6,000	1,000	30	1	1	5	2	1,000	230	448	1,000	1,000	1,000	71	4,000	1,000	1,000	1,000	1,000	4,000	1,000	71	9,071	322	86	9,479	83	17	316	416	143	1,000	11	1,670	14	14	9,370	1,231	1,231	1,000	1,000	2,000
Structural	6,072	1,000	1,000	30	1	1	5	2	1,000	230	448	1,000	1,000	1,000	71	4,000	1,000	1,000	1,000	1,000	4,000	1,000	71	9,071	322	86	9,479	83	17	316	416	143	1,000	11	1,670	14	14	9,370	1,231	1,231	1,000	1,000	2,000
Mechanical	5,289	5,000	38,902	16	20	117	507	67	1,000	230	448	1,000	1,000	1,000	71	4,000	1,000	1,000	1,000	1,000	4,000	1,000	71	9,071	322	86	9,479	83	17	316	416	143	1,000	11	1,670	14	14	9,370	1,231	1,231	1,000	1,000	2,000
other pipe and tubing	1,289	1,000	38,902	16	20	117	507	67	1,000	230	448	1,000	1,000	1,000	71	4,000	1,000	1,000	1,000	1,000	4,000	1,000	71	9,071	322	86	9,479	83	17	316	416	143	1,000	11	1,670	14	14	9,370	1,231	1,231	1,000	1,000	2,000
Wire—Carbon (galvanized)	9,641	6	6,630	138	6	30	169	36	60	155	51	9	1	80	10	4,119	10	213	16	40	80	52	76	507	41	3	720	84	240	3	654	38	7		1,026	101	101	1,848	114	114	12	30	42
Alloy	5,767	1,000	3,443	17	1	20	109	30	208	1,000	8	9	1	40	469	44	1,000	129	16	40	178	52	76	859	41	3	1,000	84	240	3	654	38	7		1,026	101	101	1,848	114	114	12	30	42
Barbed, twisted, steel	1,874	6	1,187	121					8	155	8	9	1	40	469	44	1,000	129	16	40	178	52	76	859	41	3	269	84	240	3	654	38	7		1,026	101	101	1,848	114	114	12	30	42
Insulated, copper	11,948	1,794	3,443	17	1	20	109	30	208	1,000	8	9	1	40	469	44	1,000	129	16	40	178	52	76	859	41	3	1,000	84	240	3	654	38	7		1,026	101	101	1,848	114	114	12	30	42
Rope, cable	46,726	308	4,000			4	991	19	29	132	120	1,473		8,322		334		96	80	1,067	1,176			1,343	184	55,067	33,778			89,029	4,000	883		23,003	278	28	368		368			
Tie plates	39,4001	4,441	11,774	963	3	155	1,008	3,018	84	1,047	6,163	1,803	637	8,082	7,125	155,586	44	33,014	3	95	1,614	155	1,033	22,475	63,148	259	865	71,206	141	11,918	3,149	5,057	17,564	31	1,000	11,000	500	96,409	226	58	226	12,117	7,000	331	32,072
Tool steel	1,000	1,000	1,000							1,000						1,000																										
Valve steel	1,000	1,000	1,000							1,000						1,000																										
Wheels, tires (b)	106,797	161,800	36,914	1,957	33	111	369	19	140	15,377	12	35	1	1,000	64,200	600	734	4	1,783	50	95	13,524	18,196	569	158	19,755	274	756	1,149	1,041	127	31	16	3,106	43	2,057	12	43	1,041		43	1,084
Car builders	75,708	1,473	2,602	1,957	33	111	369	19	140	3,291	12	35	1	1,000	17,340	600	1,891	4	17	617	692	263	3,653	62	158	4,199	491	1,741	1,149	1,041	127	31	16	4,471	43	2,057	12	43	1,041		43	1,084
Wheels & axles, finish. and other trades	31,089	160,327	34,312	1,957	33	111	369	19	140	12,086	12	35	1	1,000	46,860	600	8,843	4	1,766	433	2,215	13,261	14,543	569	158	15,556	147	15	1,149	1,041	127	31	16	1,365	43	2,057	12	43	1,041		43	1,084
Forged, rolled rounds, etc.	12,202	178	1,800						291	1,805						2,096		11			113	197	18	341	8	135	823	9	1,211						1,741			1,741			3,564		3,564
Scrap (for remelting)	30,607	1,191	1,000	40		17	120	10	1,000	11,259	11	1,000	1,000	1,000	1,000	18,148	1,000	1,000	1,000	1,000	4,000	1,000	1,000	9,000	1,000	1,000	18,148	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	9,000	1,000	1,000	1,000	1,000	2,000
Cast steel	30,041	1,064	1,000	40		17	120	10	1,000	11,259	11	1,000	1,000	1,000	1,000	18,148	1,000	1,000	1,000	1,000	4,000	1,000	1,000	9,000	1,000	1,000	18,148	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	9,000	1,000	1,000	1,000	1,000	2,000
Total Steel Mill Products	1,003,703	87,141	543,546	14,361	191	11,408	4,739	18,008	1,001	80,619	72,302	61,488	8,263	91,591	54,396	1,300,953	6,161	44,258	6,691	4,345	4,322	7,321	44,238	127,798	8,078	1,467	167,606	6,663	10,922	35,707	87,356	21,774	17,268	17,810	12,958	11,914	164,174	11,703	14,163	50,775	77,641	154,282	116,796
Carbon	1,196,183	196,304	498,44	12,743	925	86	10,954	11,4	1,813	41,024	29,815	44,917	4,000	52,578	17,586	886,003	5,004	34,118	4,295	2,722	2,432	4,597	27,482	100,631	6,339	1,249	124,967	4,326	50,068	32,826	87,079	20,276	14,296	17,463	12,958	7,091	163,188	6,001	8,000	47,735	13,976	75,712	56,000
Alloy	676,821	74,837	44,727	1,618	191	10,322	4,739	18,008	848	39,595	42,487	16,571	4,263	39,013	36,810	414,950	1,157	10,140	2,396	1,623	1,890	2,724	16,756	36,686	1,739	218	42,639	2,337	40,146	2,881	277	452	3,472	343	4,823	1,086	5,702	1,963	6,163	2,900	63,929	78,570	60,796
Stainless	84,878	39,564	33,181	381	40	1,000	56	1,000	340	2,023	2,000	1,000	1,000	437	1,000	31,494	1,000	4,371	1,000	117	1,000	1,000	967	8,055	2,163	1,000	9,317	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	9,000	1,000	1,000	1,000	1,000	2,000	1,000
Other Steel Products																																																	
Flanges, Fabricated	10,473	4,999	1,004	24	57	100	16	68	7	360	2	29	600	41	2	1,831		12	57		3	2	1	84	266		363	22	3		393	38	173		141	216	1,141	35	46		46	182	479
Plates, Fabricated	17,399	13,608	21,052	704	80	495	1,398	1,196	562	3,031	554	614	536	512	5,097	104,816	186	1,330	98	84	346	268	306	2,942	135	146	3,719	230	20	82	19,597	4,998	998	734	1,216	691	29,666	493	511	1,834	1,663	4,008	10,017
Structural Steel, Fabricated	36,727	375	14,397	10		300	183	300	841	303						36,379		4			5	28		36			36				1,000				1,000			1,000			291			47
Radio, Tower	36,727	375	14,397	10		300	183	300	841	303						36,379		4			5	28		36			36				1,000				1,000			1,000			291			47
Railroad Track Material	4,811	1,197	1,000	10					59	63	54	13	10			1,000		1						1			1				307				307			307			17		17
Rolls, cast	26,765	10,911	7,004	170	35	30	107	11	1,000	78	134	11	31	10,000	81	578	105	104	188	505	124	1,772	14	2,844	198	9	3,051	114	339	1	198	208	5,149	715	726	16	57	1,526	2,600	2,600	2,600	2,600	10,400
Architectural & ornamental work, N.E.C.	10,188	437	6,067	1					100	236	12	166	114	170	32	3,340	3	43	144	9	9	80	14	264			1,121	42	2		1,000				1,044	81	81	1,125	1	1	1		1	3
Bars over 6" in cross-section & over	12,631	1,740	1,781	36	14	102	100	111	10	116	45	273	36	26	3,058	28	338	189	122	357	294	72	1,332	99	4	1,825	116	32	15	1,000	32	1,000	1	1,196	93	93	1,162	39	39	1	1	41	3
Fabricated wire products	13,276	1,741	1,781	36		102	100	111	10	116	45	273	36	26	3,058	28	338	189	122	357	294	72	1,332	99	4	1,825	116	32	15	1,000	32	1,000	1	1,196	93	93	1,162	39	39	1	1	41	3
Wire, barbed	1,000	1,000	1,000							1,000						1,000								1,000			1,000															
Welded tube mills	1,143	938	1,000	36	14	102	100	111	10	116	45	273	36	26	3,058	28	338	189	122	357	294	72	1,332	99	4	1,825	116	32	15	1,000	32	1,000	1	1,196	93	93	1,162	39	39	1	1	41	3
Sheets, Fabricated	29,268	1,401	1,000	1,000	36	7	36	10	1,000	1,000	1,000	1,000	1,000	1,000	1,000	9,000	1,000	1,000	1,000	1,000	4,000	1,000	1,000	9,000	1,000	1,000	18,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	9,000	1,000	1,000	1,000	1,000	2,000	1,000
Structural Steel	3,473	1,000	1,000	1,000	36	7	36	10	1,000	1,000	1,000	1,000	1,000	1,000	1,000	9,000	1,000	1,000	1,000	1,000	4,000	1,000	1,000	9,000	1,000	1,000	18,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	9,000	1,000	1,000	1,000	1,000	2,000	1,000
Tubing	11,005	1,000	1,000	1,000	36	1	36	10	1,000	1,000	1,000	1,000	1,000	1,000	1,000	9,000	1,000	1,000	1,000	1,000	4,000	1,000	1,000	9,000	1,000	1,000	18,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	9,000	1,000	1,000	1,000	1,000	2,000	1,000
Pipe and tube mills	30,184	1,000	1,000	1,000	36	147	71	10	1,000	1,000	1,000	1,000	1,000	1,000	1,000	9,000	1,000	1,000	1,000	1,000	4,000	1,000	1,000	9,000	1,000	1,000	18,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	9,000	1,000	1,000	1,000	1,000	2,000	1,000
Total Other Steel Products	308,486	114,467	108,286	3,789	229	1,433	3,231	1,604	409	10,425	1,000	2,652	4,041	2,137	6,144	253,416	1,029	4,008	2,654	1,402	4,404	3,829	1,522	21,997	1,084	358	26,903	2,004	443	274	72,828	6,410	4,428	8,805	2,940	1,029	119,066	3,602	3,863	3,769	3,863	11,294	3,769
Total Steel Products	1,312,189	201,608	651,832	18,150	420	12,841	7,970	19,612	1,410	91,044	73,302	64,140	12,304	93,728	60,540	1,554,369	7,181	71,226	9,345	5,807	8,726	11,150	45,760	158,795	9,162	1,825	194,509	8,667	11,365	35,981	160,184	28,184	21,696	26,615	15,898	12,943	283,240	15,305	18,026	54,544	81,504	165,576	120,565
Iron Products and Ferroalloys																																																
Cast iron pressure pipe	60,497	1,301	3,870	162	66		267	19	25	636	159	24	89	52	11	10,431	1	47	94		135	4	242	612	369	2	998	84			9,064	179	368		9	31	13,133	43	11	1,072	171	1	1,787
Cast iron soil pipe	2,476	1,000	433	11		6	67	3	10	87	3	1		1	1	1,346		1						1			1				174				174			174			6		6
Cast iron fittings not malleable	18,413	3,322	2,747	66	68	25	108	114	179	1,094	111	78	79	8	66	5,502	11	191	152	29	24	42	15	479	14	1	618	94	6	42	3,508	9	393	3	994	137	2,000	108	85	374	6	63	1,026
Cast iron fittings malleable	7,843	1,000	1,000	30	9	25	5	4	16	298	16	1,114	67	3	1,000	1,910	5	25	4	4	114	3	10	161	126	1	477	67	6	42	1,000	9	393	3	994	137	2,000	108	113	374	6	63	1,026
Iron castings	113,618	140,117	594	3	9	15	16	17	17	91	9	360	184	49	79	1,299	4	1,014	11	78	57	36	14	1,194	14	20	1,282	53	107		1,140		1		1,301	2,063	2,063	107	74	22	103	206	309
Pig iron	16,774	1,000	4,074	1,000						1,000						3,074						80		80			80								1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	2,000	1,000
Sponge iron, iron of steel products	18,712	9,449	4,008	126					97	392	1	236	24	631	674	6,216	128	250	22	153	34	210	4	804	6	880	42	2		1,455	106			1,455	106	42	148	1,000	1,000	1,000	1,000	2,000	1,000
Ferroalloys	61,107	33,098	3,593	50					117	317		31	71	40	173	6,412	35	128	255	244	158	6,033	486	7,360	2	18	8,234	16	32		50		136		234	7,184	8,300	1,432	1,198		2,630	143	3,916
Total Iron Products & Ferroalloys	302,446	190,992	20,341	441	153	36	471	147	552	2,932	433	646	525	805	1,041	38,442	204	1,656	541	545	382	7,121	758	11,131	471	42	12,581	350	150	128	20,053	303	1,211	1	902	9,499	69,969	1,827	3,007	1,626	505	135	7,100
Grand Total	3,774,725	1,135,501	1,023,356	36,907	973	13,308	28,904	14,955	3,972	93,973	74,468	67,786	13,451	39,933	31,371	1,598,811	7,415	72,881	9,796	6,452	9,308	18,271	46,518	170,926	10,233	1,767	207,970	9,017	60,715	56,109	180,437	28,103	21,121	18,042	60,855	23,419	655,989	18,177	29,041	62,370	91,749	11,704	148,305
Iron and Steel Scrap	6,415,379	737,745	806,453	7,291	4,034	11	258	30,558	12,845	54,699	168	20,155	11,236	7,437	134	1,045,973	2,104	4,679	1,339	4,469	1,124	3,078	34,372	319,760	433,729	303,656	1,120,567	494	335,277	120,518	525	148	1,240,757	175	374,342	1,190,750	3,490,676	59	73	551	63,615	144	148,873

* Includes totals for Denmark, Ireland and Greece
Country detail may not add to regional total because of omissions of some countries.

TABLE 24—IMPORTS OF IRON AND STEEL PRODUCTS BY COUNTRIES OF ORIGIN—1981

(Net tons)

Products	Grand Total	Latin America						Europe														Asia					Australia & Oceania			Africa	
										European Economic Community																						
		Canada	Mexico	Venezuela	Brazil	Argentina	Total Latin America	Sweden	Norway	United Kingdom	Netherlands	Belgium-Luxembourg	France	Federal Republic of Germany	Italy	Greece	Total EEC	Finland	Austria	Poland	Spain	Romania	Total Europe	Israel	People's Republic of China	Korea Republic	China Taiwan	Japan	Total Asia	Australia	New Zealand	Total Australia & Oceania	Republic of South Africa	Total Africa
Steel Mill Products																															
Ingots, blooms, billets, slabs, etc.	700,062	579,267	—	—	14,163	—	14,166	25,760	4,703	55,419	58	2,745	410	34,509	19,093	—	112,234	—	286	—	46,587	—	189,567	—	1	—	—	7,958	7,962				17,994	18,553
Wire rods	888,142	330,112	—	25,444	34,166	21,166	86,896	19,650	—	29,521	10,569	23,977	116,025	22,517	4,409	—	207,909	—	1,154	—	4,453	—	282,097	—	—	34	—	690,775	690,809	749		749	108,488	108,743
Structural shapes—Plain 3" & over	1,976,796	224,259	3,945	—	599	599	20,253	173	—	142,869	1,384	402,944	52,029	109,647	428	—	709,241	17,188	217	—	236,075	—	964,895	—	—	985	897	655,775	657,577	749		749		
Sheet piling	98,712	16,398	—	—	—	—	—	17,448	765	24,854	25,555	12,871	—	—	—	—	81,493	—	—	—	211	—	81,704	—	—	—	—	700	700					
Plates	2,447,888	264,147	59	23,699	399,333	—	335,168	66,336	12,236	39,366	60,370	341,909	135,342	222,431	58,205	—	880,570	63,133	8,383	106,896	110,609	240,380	1,479,040	—	—	132,371	27	151,596	283,864	14,218		14,218	74,261	74,261
Rail and track accessories	282,868	104,671	—	—	—	—	—	4,658	—	12,006	29,310	66,381	4	—	—	—	112,359	—	1,800	—	—	—	114,257	—	—	862	—	62,677	64,539	1		1	630	630
Wheels and axles	35,701	6,962	7	1	949	—	957	199	—	70	—	—	8,363	598	248	—	9,279	—	105	—	—	—	9,598	—	—	—	—	17,954	17,954				630	630
Concrete reinforcing bars	52,645	5,162	1,207	—	9,169	—	10,376	6	6,488	407	—	10	7,891	145	—	—	8,513	—	—	—	1,978	—	16,965	—	—	5,495	—	7,474	12,969				7,149	7,153
Bar shapes under 3"	105,417	34,002	—	—	774	640	1,414	—	—	1,883	431	16,963	1,591	576	93	—	20,639	—	4	111	2,099	—	22,853	—	—	4,158	2,747	37,095	43,999	14		14	3,747	3,747
Bars—Hot rolled—Carbon	418,008	160,130	2	—	7,256	1,265	8,464	292	—	117,283	26	14,785	5,485	13,714	23	—	151,316	—	8	540	33,708	—	185,868	—	—	17,761	282	80,403	112,416				2,130	2,130
Bars—Hot rolled—Alloy	176,564	59,869	—	—	769	13	782	10,424	—	6,407	204	2	40,924	5,918	1,543	—	54,998	389	1,779	60	5,645	—	73,303	1	—	604	—	42,695	42,610	39		39	1,415	1,415
Bars—Cold finished	232,005	16,951	435	—	4,502	646	5,583	3,744	—	32,397	79	1,472	46,785	7,092	4,181	—	92,011	6,076	1,839	699	23,516	—	127,876	99	—	3,014	10	77,918	80,141	39		39	1,415	1,415
Hollow drill steel	1,442	1,292	—	—	—	—	—	20	—	—	—	—	—	—	—	—	20	—	—	220	—	—	240	—	—	—	—	—	—					
Welded pipe and tubing	2,740,822	191,867	26,888	47,254	75,969	3,746	153,798	864	—	16,344	14,521	5,358	88,484	107,579	220,974	17,407	470,673	—	—	9,756	17,684	10,580	512,681	21,998	106	663,458	117,725	1,069,743	1,874,123	21,144	69	21,213	47,142	47,142
Other pipe and tubing	3,827,734	294,216	3,410	13,081	50,128	30,780	97,467	29,225	19	64,628	1,928	74,652	63,596	731,186	322,610	52,105	1,310,723	—	9,326	—	142,732	56,477	1,569,416	4,241	—	61,245	3,557	1,797,431	1,867,094	830		830	7,711	7,711
Round and shaped wire	369,173	106,754	182	—	1,261	17	1,460	9,334	1,725	17,927	4,868	44,535	36,343	15,735	4,812	—	124,220	357	314	1,030	2,188	—	132,213	96	—	7,430	793	106,611	115,016	259	3,661	3,920	2,810	2,810
Flat wire	15,847	741	—	—	—	—	—	20	2,135	—	886	54	2,898	3,567	944	27	8,376	399	54	—	24	—	11,003	—	—	270	—	3,813	4,083	1		1		
Bale ties	83	4	75	—	—	—	75	—	—	—	3	—	—	—	—	—	3	—	—	—	—	—	3	—	—	—	—	—	—	1		1		
Galvanized wire fencing	8,152	4,158	2,203	—	—	—	2,203	—	—	87	—	1,547	38	162	—	—	1,834	—	—	—	—	—	1,835	—	—	—	—	—	—	556		556	596	596
Wire nails	303,178	69,687	102	—	19	—	121	3	—	240	59	299	432	176	129	—	1,378	—	63	25,726	19,485	—	55,429	1,647	26,658	115,279	1,011	32,954	177,567	1	8	9	472	30	30
Barbed wire	26,942	628	1,721	—	642	840	3,203	—	—	1	22	8,243	42	174	—	—	8,482	—	—	—	4,593	—	13,324	—	19	9,330	8	998	9,455	36	87	123	599	599
Black plate	97,842	9,728	—	—	—	—	—	—	—	891	8,972	—	4,947	768	14	—	14,701	—	—	—	—	—	14,701	—	—	—	—	73,284	73,284	106		106	23	23
Tin plate	266,271	37,848	—	—	—	10	10	—	—	891	3,256	904	36,432	32,271	—	—	73,754	—	—	—	—	—	73,754	—	—	598	—	172,690	173,288	1,826		1,826	3	3
Terne plate	2,142	11	—	—	—	—	—	23	—	—	—	—	—	178	—	—	178	—	—	—	—	—	178	—	—	—	—	1,953	1,953					
Sheets—Hot rolled	1,638,144	151,295	292	12,429	2,915	—	15,741	1,990	—	1,392	197,778	66,153	351,461	216,935	42,814	—	876,254	49,137	10,998	709	5,075	27	944,442	—	—	54,057	—	479,061	533,118	5,879		5,879	77,141	77,141
Sheets—Cold rolled	1,626,000	104,021	93	1,872	18,883	1	20,849	3,565	—	16,072	146,365	46,345	166,935	397,475	57,699	22,928	853,819	4,013	371	—	66,376	—	928,208	—	—	160,357	—	491,444	565,296	27,944		27,944	39,772	39,772
Sheets—Coated (incl. galvanized)	1,303,386	148,309	137	—	193	—	330	—	—	3,299	10,865	13,907	63,912	126,681	30,606	—	249,270	—	523	—	18,585	—	268,378	—	—	40,691	4,101	780,960	801,752	47,559	6,899	54,458	30,979	30,979
Sheets—Coated—Alloy	9	3	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	1	—	—	—	—	5	5					
Strip—Hot rolled	24,959	3,495	31	—	959	1,656	2,607	197	—	138	—	2,554	—	4,441	—	—	7,133	20	4	—	141	—	7,498	—	—	2,158	84	8,974	11,196	143		143		
Strip—Cold rolled	50,870	15,318	115	—	4	12	131	2,352	—	3,372	—	59	749	19,681	138	—	23,999	1,021	10	—	375	—	27,758	—	—	286	—	7,363	7,569	94		94		
Strip—Hot & cold rolled—Alloy	23,091	5,909	—	—	—	—	—	2,051	—	621	1	305	1,250	6,494	54	—	8,729	—	53	—	3	—	10,836	—	—	—	—	6,354	6,354					
Sheets—Other—Electrically coated	96,965	3,461	—	—	—	—	—	23	3	67	1,467	—	4,352	14	—	—	8,928	—	—	—	—	—	8,928	—	—	—	—	44,175	44,176					
Total Steel Mill Products	19,898,340	2,898,795	40,904	125,771	547,884	61,421	782,156	169,503	25,171	573,676	462,572	1,108,593	1,289,365	2,164,352	768,121	92,440	6,482,137	124,545	37,381	167,498	729,798	397,364	8,077,373	28,041	26,788	1,218,361	131,192	6,220,083	7,639,347	117,397	10,900	128,759	371,098	371,919
Carbon	18,615,633	2,712,039	39,066	125,771	536,157	56,404	763,871	102,139	25,152	481,073	455,379	1,042,932	1,160,028	1,988,798	673,207	92,440	5,916,860	114,060	28,829	166,829	698,396	397,364	7,393,502	28,041	26,783	1,211,408	131,183	5,803,599	7,245,945	117,086	10,900	126,539	370,912	371,733
Alloy	1,091,544	172,668	549	—	7,466	4,257	12,275	48,610	19	82,613	7,114	60,507	107,598	152,250	89,721	—	499,809	6,814	7,921	654	16,005	—	579,918	—	5	1,810	—	324,849	326,864	188		188		
Stainless	191,193	14,088	1,289	—	4,261	260	6,010	18,754	—	9,990	79	5,154	21,739	23,304	5,193	—	65,468	3,671	631	15	15,397	—	103,953	—	—	5,283	9	63,635	68,933	23		23	186	186
Other Steel Products																															
Structural shapes, fabricated	167,567	78,829	990	—	—	—	994	364	13	4,294	195	131	855	1,776	7,729	5	15,096	1	933	—	211	—	16,861	—	—	4,730	2,982	63,867	70,715	44	91	135	2	2
Shapes—Cold formed	485	150	—	—	—	—	—	11	—	59	—	6	—	80	—	—	145	—	14	—	31	—	294	—	—	—	—	—	—				131	131
Sashes and frames	703	501	62	—	—	—	62	1	—	14	4	—	109	2	2	—	131	—	—	—	—	—	132	—	—	2	6	—	8					
Fence or sign posts	1,162	106	2	—	469	—	471	—	—	—	—	—	2	—	—	—	2	—	—	—	—	—	2	—	—	—	25	—	30				553	553
Wire—Nonmetallic covered	1,006	21	1	—	59	—	185	—	—	13	527	—	4	13	1	—	574	3	—	—	—	—	602	—	—	167	5	23	196				1,853	1,853
Wire rope	121,414	6,316	705	—	23	—	1,999	161	1,759	1,733	529	12,952	9,767	1,532	197	—	26,835	—	35	—	1,838	—	30,829	92	16	62,713	1,735	15,853	80,417				16,409	16,624
Wire strand	148,441	3,256	23	—	7,389	116	7,528	57	81	5,084	1,819	5,618	6,705	2,515	3,184	—	24,934	—	1,331	—	15,017	—	40,021	34	—	26,407	875	14,153	41,469	61		61		
Welded wire fabric	13,730	9,015	1,929	—	—	—	1,929	—	—	455	403	1,362	—	118	—	—	2,339	—	—	—	138	—	2,478	—	182	1	1	122	305	—	3	3		
Other nails and staples	26,243	1,437	123	—	1	—	1,166	2,036	—	368	104	46	1,376	3,114	368	—	5,376	—	1,411	426	24	—	9,337	32	932	9,694	274	3,315	14,254	45		45	4	4
Bale ties—Strip	1,989	—	—	—	—	—	—	—	—	—	—	—	—	1,249	—	—	1,249	18	—	—	—	—	1,267	—	—	—	—	106	106	16		16		
Bolts, nuts and rivets	445,312	43,039	510	—	218	132	864	741	—	1,092	4,640	48	283	6,167	5,391	—	17,867	2	51	9,466	1,724	70	35,626	67	12,741	14,858	86,797	243,282	364,341	769		769	622	643
Grinding balls	14,347	13,021	—	—	50	—	50	10	—	13	—	—	105	26	98	—	242	—	—	—	97	—	349	—	—	498	—	498	498				19	19
Blanks, nonrectangular flat rolled	2,830	2,154	25	—	2	—	27	41	—	12	81	87	890	196	—	—	1,268	—	11	3	554	—	1,877	—	—	26	1	744	772					
Rapid conduit	1,920	579	—	—	—	—	—	4	—	51	—	—	—	393	10	—	461	—	—	—	—	—	465	338	—	384	10	147	876					
Pipe and tube fittings	132,066	9,068	35	—	6,525	—	6,560	145	941	6,488	43	102	7,011	7,626	10,172	—	31,447	—	33	—	3,769	1,583	37,748	683	—	6,797	4,561	57,649	75,355	2,231		2,231	101	104
Total Other Steel Products	1,080,715	167,983	4,405	—	14,746	248	21,435	3,571	2,794	19,676	8,345	20,352	27,114	24,807	27,153	5	127,876	24	3,819	9,895	22,003	1,453	177,848	1,196	13,871	127,775	97,152	436,441	686,936	3,196	94	3,290	19,774	19,833
Total Steel Products	20,979,055	3,066,778	45,309	125,771	562,630	61,669	803,591	173,074	27,965	593,352	470,917	1,128,945	1,316,479	2,189,159	795,274	92,445	6,610,013	124,569	41,200	177,393	751,801	398,817	8,255,221	29,237	40,659	1,346,136	228,344	6,656,524	8,329,393	120,593	11,074	132,030	390,872	391,752
Iron Products & Ferroalloys																															
Bar iron, iron slabs & blooms, etc	177	82	25	—	—	—	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	30	203	960	69		69	—	—
Cast iron soil pipe and fittings	1,040	15	45	—	—	—	45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	196	—	—	1,737	311	42	3,090	226	—	226	—	—
Other cast iron pipe and fittings	7,841	3,607	132	—	—	—	132	1	—	101	—	—	12	14	63	—	190	—	—	—	—	—	442	—	—	759	3,167	9,366	15,479				11	11
Malleable cast iron pipe fittings	16,360	1,214	—	338	—	—	343	1	—	180	—	—	183	79	2	—	445	9	—	—	—	—	459	4	9	759	3,167	9,366	13,479				11	11
Castings and forgings	122,978	6,910	6,361	—	5,961	—	12,362	443	7	11,992	65	40	3,308	7,607	29,436	—	52,448	—	11	374	4,028	—	58,062	377	126	1,340	5,696	3,291	44,911	40	3	43	672	690
Pig iron	433,917	234,981	—	—	138,952	—	138,952	4,526	—	—	—	27	4,833	1	—	—	4,861	—	—	—	—	—	9,387	—	—	—	—	1	1	3,707	—	3,707	45,989	45,989
Sponge iron	75,710	69,940	—	2,204	—	—	2,204	1,322	—	336	—	—	20	521	—	—	877	—	—	—	—	—	2,200	—	—	—	—	1,366	1,366	—	—	—	5,698	212,046
Ferromanganese (manganese content)	516,651	48,793	35,786	9,424	—	—	45,210	—	4,069	10,659	—	—	142,025	33	—	—	152,717	—	—	—	7,663	—	200,540	—	4	16	—	4,982	4,958	5,698	—	5,698	1,452	1,965
Ferrosilicon (silicon content)	110,742	11,300	16	17,854	33,281	1,447	53,289	—	21,990	—	—	56	8,203	1,347	221	—	12,050	—	—	—	48	—	44,167	—	—	—	—	—	—	—	—	—	140,190	177,674
Ferrochromium (chromium content)	244,314	—	—	—	11,152	—	11,152	7,501	1,134	—	—	19	1,695	3,368	528	—	5,610	—	—	—	922	—	51,096	—	1,769	—	—	846	4,192	—	—	—	18,175	21,469
Other ferroalloys	121,495	1,818	889	1,791	30,433	—	42,559	67	11,231	3,188	72	178	7,596	321	1,648	—	13,003	—	119	—	122	—	35,897	—	331	—	—	3,737	5,458	8,979	—	14,274		
Total Iron Products & Ferroalloys	1,650,325	377,570	43,254	21,849	229,531	1,447	306,273	13,861	38,431	26,456	137	320	167,875	13,291	31,896	—	242,198	—	130	374	12,783	—	402,004	381	2,270	3,864	9,204	22,977	80,977	18,119	3	23,417	418,535	469,094
Grand Total	22,629,380	3,444,348	88,563	147,620	792,161	62,816	1,110,264	186,935	66,396	619,808	471,054	1,129,265	1,484,354	2,202,450	827,170	92,445	6,852,211	124,569	41,330	177,767	764,584	398,817	8,657,225	29,618	42,929	1,350,020	237,548	6,679,501	8,410,269	138,712	11,077	150,447	809,407	861,806
Iron and Steel Scrap	561,766	513,750	33,664	—	—	—	35,595	2,336	—	2,421	211	154	4,546	938	3	212	8,485	—	—	—	—	—	10,978	93	—	—	49	1,174	1,412	17	—	17	—	14

*Includes totals for Ireland and Denmark.
Country total may not add to regional total because of omissions of some countries.

TABLE 26—IMPORTS OF IRON AND STEEL BY CUSTOMS DISTRICT—1981

(Net tons)

Product	Grand Total	Boston	Atlantic Coast: Providence (Bridgeport)	New York (a)	Philadelphia	Baltimore, Md.	Norfolk	Wilmington, N.C.	Charleston, S.C.	Savannah, Ga.	Tampa	Miami	Gulf Coast/Mexican Border: Total	Mobile	New Orleans	Port Arthur	Galveston	Dallas-Houston	Laredo	El Paso-Nogales	Pacific Coast: Total	San Diego	Los Angeles	San Francisco	Portland, Oreg.	Seattle	Virgin Islands, U.S.	Anchorage	Honolulu	San Juan	Other: Total	Portland, Me.	Albany	Ogdensburg	Buffalo	Detroit	Duluth	Great Falls, Mont.	Minneapolis-St. Paul	Nogales, Ariz.	Laredo, Tex.	El Paso, Tex.	Houston-Galveston	Dallas, Tex.	Los Angeles	San Francisco	Portland, Oreg.	Seattle	Anchorage	Honolulu	San Juan	Total
Total, Mill products and ferroalloys	29,606,[illegible]	59	114	41,111	1,464	867	10	3	13	56,943	2,497	18	59,458	7,107	47,105	167	29,077	4		83,460	4,207	111,217	21,374	1,256	4,130	1,255	1	1	1,111	1,111	146,101	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111
Ingots, blooms, billets, slabs, etc.	888,11[illegible]	111	1,447	1,000	11,000	10,100	110	1,000	11,000	6,111	11,000	111	11,111	1,000	11,111	111	11,111	111	111	11,111	1,111	111,111	11,111	1,111	1,111	1,111	111	111	1,111	1,111	11,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111
Plates, total shapes (Plate—A cent)	1,[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Sheet, total	1,[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Sheet, galv'd	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Plate, galv'd	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Hoop and strip, total	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Bar (hoop & strip)	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Bar (hoop & strip), A.C.	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Bar (hoop & strip), all other	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Bar (rod & angle)	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Bar (rod & angle), A.C.	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Wire rod	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Wire, all other	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Rail, total	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Rail, plain	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Tie plates	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Track spikes	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Structural (H-beams)	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Structural (channels)	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Structural (angles, tees, zees, etc.)	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Structural (piling)	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Structural (sheet piling)	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Structural (fabricated)	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Pipe and tubes, total	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Pipe, welded	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Pipe, welded, oil country goods	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Pipe, welded, all other	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Pipe, seamless	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Pipe, seamless, oil country goods	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Pipe, seamless, all other	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Fittings, total	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Fittings, cast iron pipe and fittings	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Fittings, cast iron pipe, 16" & over	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Malleable iron pipe fittings	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Steel pipe and tubes, all other	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Pig iron	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Spiegeleisen	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Ferromanganese (over 4% carbon)	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Ferromanganese (not over 4% carbon)	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Ferrosilicon (50% or more silicon)	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Ferrosilicon (under 50% silicon)	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Ferroalloys, all other	[illegible]	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
Total Iron Products & Ferroalloys	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Grand Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Iron and Steel Scrap	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

TABLE 27—RAW STEEL PRODUCTION BY TYPE OF FURNACE AND BY GRADES

	(Thousands of net tons)														Per Cent of Total						Steel for Castings (Included in Total Production) (Thousands of net tons)			
	Open Hearth			Basic Oxygen Process			Electric				Total All Grades				By Grade			By Type of Furnace						
Year	Carbon	Alloy	Total	Carbon	Alloy	Total	Carbon	Alloy	Stainless	Total	Carbon	Alloy	Stainless	Total	Carbon	Alloy	Stainless	OH	BOP	Electric	Carbon	Alloy	Stainless	Total
1981	12,195	1,257	13,452	65,701	7,530	73,231	23,566	8,836	1,743	34,145	101,462	17,623	1,743	120,828	84.0	14.6	1.4	11.1	60.6	28.3	128	44	1	173
1980	11,844	1,210	13,054	60,532	7,083	67,615	22,313	7,152	1,701	31,166	94,689	15,445	1,701	111,835	84.7	13.8	1.5	11.7	60.4	27.9	121	55	2	178
1979	17,200	1,958	19,158	75,334	7,922	83,256	23,692	8,128	2,107	33,927	116,226	18,008	2,107	136,341	85.3	13.2	1.5	14.0	61.1	24.9	154	59	2	215
1978	19,026	2,284	21,310	75,053	8,431	83,484	22,837	7,446	1,954	32,237	116,916	18,161	1,954	137,031	85.3	13.3	1.4	15.6	60.9	23.5	157	51	2	210
1977	18,045	1,998	20,043	70,551	6,857	77,408	19,534	6,486	1,862	27,882	108,130	15,341	1,862	125,333	86.3	12.2	1.5	16.0	61.8	22.2	141	45	2	188
1976	21,426	2,044	23,470	73,588	6,330	79,918	16,994	5,934	1,684	24,612	112,008	14,308	1,684	128,000	87.5	11.2	1.3	18.3	62.5	19.2	154	47	2	203
1975	19,794	2,367	22,161	64,840	6,961	71,801	15,726	5,843	1,111	22,680	100,360	15,171	1,111	116,642	86.0	13.0	1.0	19.0	61.6	19.4	185	68	2	255
1974	32,479	3,020	35,499	74,534	7,018	81,552	19,595	6,924	2,150	28,669	126,608	16,962	2,150	145,720	86.9	11.6	1.5	24.3	56.0	19.7	125	73	2	200
1973	36,768	3,012	39,780	76,868	6,392	83,260	19,111	6,759	1,889	27,759	132,747	16,163	1,889	150,799	88.0	10.7	1.3	26.4	55.2	18.4	114	62	1	177
1972	32,036	2,900	34,936	69,231	5,353	74,584	16,431	5,726	1,564	23,721	117,698	13,979	1,564	133,241	88.3	10.5	1.2	26.2	56.0	17.8	80	54	2	136
1971	32,612	2,947	35,559	59,472	4,471	63,943	14,923	4,755	1,263	20,941	107,007	12,173	1,263	120,443	88.8	10.1	1.1	29.5	53.1	17.4	92	52	2	146
1970	44,361	3,661	48,022	58,889	4,441	63,330	14,161	4,722	1,279	20,162	117,411	12,824	1,279	131,514	89.3	9.7	1.0	36.5	48.2	15.3	98	62	2	162
1969	55,530	5,364	60,894	55,927	4,309	60,236	13,375	5,188	1,569	20,132	124,832	14,861	1,569	141,262	88.4	10.5	1.1	43.1	42.6	14.3	116	54	2	172
1968	59,572	6,264	65,836*	45,706	3,106	48,812	10,991	4,391	1,432	16,814	116,269	13,761	1,432	131,462	88.4	10.5	1.1	50.1	37.1	12.8	116	55	2	173
1967	64,265	6,425	70,690*	38,811	2,623	41,434	10,114	3,524	1,451	15,089	113,190	12,572	1,451	127,213	89.0	9.9	1.1	55.6	32.6	11.8	134	59	1	194

* Bessemer included with open hearth.